The Control of Parenthood

James Marchant

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THE CONTROL OF PARENTHOOD

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BY

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Introduction by THE BISHOP OF BIRMINGHAM

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INTRODUCTION

No one can be doubtful as to the usefulness of this book. We are living in days when all are confessing the responsibility of Parenthood, but we find it difficult to know our duty because we get such different guidance, and because there seems sometimes to be conflict between that which is true biologically or economically, and that which appeals to us from the religious or social point of view. It is well then that we should have all sides put before us by those who are experts in their own particular subject, so that for whatever decision we may come to, we may be able to give a reason for the faith that is in us.

We are clear upon certain central facts as to marriage and parenthood, which one may attempt to summarize. First—Marriage should be the outcome of a pure love, and

should be entered upon with the most sacred intention that perfect union shall follow upon the vows spoken on the wedding-day. The union must be both physical and spiritual, and each of these parts completes the other. The physical union is mere passion when the whole nature is not alive to the oneness of the two souls; the spiritual knows its perfect completeness only when the parents tend and cherish the child which is the outcome of their two natures. Second—It is admitted that in an ideal state of society the intention of the father is that his children should mate in early adult life, and that they should bring into this world healthy children to be reared up as useful citizens. Third—It is unfortunately true that the circumstances of present-day life do not allow of such happy mating. We are cursed by man-made social conditions which make it impossible for young folk to marry at the natural age, and which frequently cause marriages to be arranged for purely worldly reasons. Hence come irregular unions and conditions of life leading to immorality and to

prostitution. Fourth—Consequent upon this unsatisfactory state of things, we find that books have to be written, conferences have to be held, judgments have to be formed to fit in with "the present distress," and not with the perfect freedom which should be associated with the primal marriage. What are the problems which face alike the eugenist, the social worker, the religious teacher?

There is first the antechamber to matrimony. How are the young to be taught the sacredness as to body, the purity of heart and the whole-souled offering of themselves implied in the word *love?* Marriage is not to be the satisfaction of rash desire, or the calculated assurance of a comfortable home, it is the union of twin souls. Here the parents, the religious and the secular teachers, with wholesome literature, must all have their share in rousing chivalry and in impressing the great ideal.

There is next the wedded life to consider. The couple must live one for the other, giving honour one to the other, and they must view

the office of Parenthood as awful in its majesty and beauty. Not merely to bring children into the world, but to bring in fit children whom they can rightly bring up must be their determination. This may entail self-denial, but nothing is perfect without sacrifice. A wise doctor is an almost necessary friend and confidant for any married couple. The teaching of the chapters of this book will surely be of great use to wedded lives, as well as to those contemplating matrimony.

There is again the duty of the State to be remembered. It must be seen to that every mother shall have during and after childbearing the necessary physical and moral help; that every child shall be cared for so that inefficients shall be almost unknown, and true citizens shall abound; that undue temptation shall not assail the young, and that sin shall not abound; that the diseases incidental to impurity shall not be allowed to rage unchecked; that men and women shall know the dangers which belong to lust; that we shall all understand how we depend one upon the other;

that whether by emigration or other means care may be had for those to whom here at home the joys of marriage are denied; and above all, that the State shall bear in mind that upon the recognition of God in all that concerns marriage and parenthood depends the future well-being of the land we love, and of the people upon whom it would seem that at the present time rests the greatest responsibility for setting a world-wide example of the highest and best in life.

May the writers of the pages of this book have the satisfaction of contributing, as I feel sure they will, to the realization of the dreams which reading their utterances have stirred in me!

H. R. Birmingham.

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THE CONTROL OF PARENTHOOD

The Control of Parenthood

BIOLOGICAL ASPECTS

I

By Prof. J. Arthur Thomson, M.A., LL.D.

§ 1. *Various Aspects of Social Problems*

Any social problem may be considered in a variety of aspects, each of which is partial or abstract. (*a*) It may be considered in relation to the physical criterion of economy in the transformation of energy. This economy is one of the preconditions of what we call progress, but to be preoccupied with it spells materialism. (*b*) The problem may also be considered in relation to the biological criterion of health—in the deepest and highest sense of

that term. The securing of health is, again, one of the preconditions of progress; yet to be preoccupied with the "healthy animal" aspect is apt to lead to a fallacious biologism, except in the minds of those who understand something of the unity of the organism and understand that health is subtly correlated with beauty and the enjoyment of it, with goodness and the doing of it, even with truth and the seeking of it. (*c*) What we really mean by progress in human affairs is a balanced movement of a social whole towards a fuller embodiment of the supreme values (the true, the beautiful, and the good) in conditions which increasingly realize the fundamental physical and biological conditions of stability and persistence, and in lives which are increasingly rewards in themselves, both individually and socially. This definition may seem rather cumbrous to serve as level and plummet and square, but it is needed for secure building.

If we decide that a certain course of action will increase or save material resources—a

laudable aim in itself—we have further to inquire whether it will make for the health of the community and the conservation and increasing possession of beauty, goodness, and truth. Similarly, if we decide that a certain course of action will make for health, we must not follow the example of those hasty reformers who leap to the conclusion that the change contemplated will necessarily make for progress. The biological proposal must also be brought before the august tribunal of the highest values. For "life is more than food."

These are, it may be said, very obvious considerations. If so, they are continually disregarded both in argument and in practice. We put them in the foreground of our discussion here, which considers some of the population problems from the biological side. What wins the approval of the biologist as biological may not be practicable or desirable socially. On the other hand, no social proposals which run counter to biological or physical criteria can be radically sound; for social progress has biological and physical pre-conditions.

§ 2. *The Survival Value of Fertility*

The phrase "the struggle for existence," which only the careless think it easy to understand, is a technical and, at the same time, a metaphorical term. It includes all the individually variable answers-back which living creatures make to environing difficulties and limitations—everything that is tried in the clash between life and circumstances. It need not be directly competitive; it need not be literally bloody; it need not even be selective! When it is keen enough, however, and when there is considerable variability or inequality in the individual reactions, and when it lasts in the same form for a considerable time, it may lead to natural selection—certain variants surviving a virtue of qualities of relative fitness. Some survive because they are strong, others because they are clever, others because they find a cave of Adullam, others because they are agile, and others because they have put on a garment of invisibility. Professor Punnett calculates that if in a population of

ten thousand wild animals in a district there were ten of a new and promising variety, which had a five per cent. selection advantage over the original forms, the latter would almost completely disappear in less than a hundred generations. We know of such replacements occurring in wild nature, and it is plain that the rate of replacement of the old by the new will depend in part on the fertility of the new.

Intense elimination of individuals without a certain life-saving peculiarity or variation will move a species in a particular direction. This is what is called *lethal* selection. We might compare it roughly to what happens when we improve a lawn by eliminating the weeds. But it is also clear that variants with a valuable life-saving quality will become the dominant type more rapidly if they are also much more prolific than their neighbours. This is what is called *reproductive* selection. We might compare it roughly to what happens when we improve a lawn by using some fertilizer which stimulates the multi-

plication of the grass, but does not help the weeds.

As we look around among plants and animals we see that many of them are prodigiously fertile. A common weed, *Sisymbrium sophia*, often has three quarters of a million seeds; if all grew to maturity for only three years the whole of the land-surface of the globe would not hold them. A British starfish, *Luidia*, has two hundred million eggs. If all the progeny of one oyster survived and multiplied, its great-great-grand-offspring would number sixty-six with thirty-three noughts after it, and the heap of shells would be eight times the size of our earth, "which is absurd" we may well say; but these familiar possibilities illustrate what might be called the spawning solution or the fertility solution of the difficulties of life. It is not merely that the species in question is helped to hold its own by its fertility, surviving not necessarily because it is strong or clever, but because it is many; we must remember that if the quality of fertility should become differential, should in-

crease, for instance, in a new variation or mutation, it will operate as a factor in intraspecific change.

There are some obvious advantages in the spawning or fertility method of circumventing difficulties. It may save the organism from being embarrassed by the need for parental care. With a family of a million, there is considerable margin for accidents, and there is no great need for nursing. The multiplication may be concentrated in a short period of the year, or to one occasion in a life-time, leaving most of the life free for other concerns. On the other hand, there are obvious disadvantages. The production of large numbers is apt to involve the exhaustion of the parent, notably of the mother. Thus we see not only delicate creatures like butterflies, but strong creatures like marine lampreys, dying after reproduction. We speak of this as a disadvantage, but it is so, of course, only from our point of view. It precludes what we would regard as of a high value—*e.g.* a long vigorous life and the companionship of offspring; but it is clearly a line

of solution that pays well in certain animal races.

§ 3. *Economized Reproductivity*

Many races of living creatures are helped to hold their own by their great fertility, but there is another line of solution not less familiar—economized reproduction associated with increased parental care. The reduction in the number of offspring is more than compensated for by the correlated reduction of the infantile mortality, by giving the offspring a really good start. What has actually happened in the course of evolution we can only infer from analogy, but in all probability there were synchronous variations in the direction of reduced reproductivity on the one hand, and in the direction of better equipment or nurture of the offspring on the other. An old-world type such as Peripatus, without armour and weapons, has held its own in most parts of the world for millions of years, partly in virtue of its nocturnal and elusive habits, but partly

because the young are carried before birth for a very long time and are born as miniature adults, ready almost at once to fend for themselves. This is the antithesis of the spawning solution, but it is equally successful.

Compared with fishes and amphibians, most of which "spawn," birds and mammals illustrate economized reproductivity and parental care. It is a contrast of evolutionary tactics, and it might, of course, be illustrated not only by contrasting mammal with fish, but by contrasting the large litters of rats with the single offspring normal among monkeys. On the whole it seems fair to say that the reduction of fertility, contrasted with "spawning," means that a larger fraction of the year and of the life is concerned with reproduction in the case of the mother-animals. But the other side of it is that the parental life is enriched by the prolonged association with the offspring, and that the protected infancy makes the replacement of instincts by intelligence more practicable. The important general fact is that man, however diverse his fertility in

different races and in different sections of the community, is assuredly on that tact of economized reproductivity and elaborated parental care which marks the higher vertebrates. The suggestion is that he should go further in the same direction.

§ 4. *Herbert Spencer's Generalization as to Individuation and Genesis*

After a prolonged argument in his *Principles of Biology*, Herbert Spencer reached the conclusion that genesis decreases as individuation increases, the two varying in inverse ratio. Individuation means complexity, integration, fulness, and freedom of life. The tapeworm with its degenerate body and drifting life of ease has its millions of embryos; the Golden Eagle with its differentiated body and controlled life has two eaglets at a time. The less individuated organisms tend to the spawning solution; the more individuated to economized reproduction.

Now, it must be noted that what Spencer

really showed was the fact that individuation and genesis tend to be in inverse ratio. This is an evolutionary result, a state of affairs that has come about. He also sought to explain that the result was in agreement with general physiological considerations, but he certainly did not prove that high individuation directly lessens fertility. Perhaps it does, but we do not know. Very little is known in regard to the physiology of fertility.

Men of great ability, who illustrate inborn individuation, are often childless. But this may be due to mutual, not absolute, infertility. We know very little in regard to the meaning of nonpathological sterility. It is easy to ask for the children of many of the great men of the world—Aristotle, St. Paul, Descartes, Newton, Hume, Leibnitz, Kant, Kelvin, and so on; but it is not difficult to compile a fair list of famous fathers—Darwins, Herschels, Bernouillis, Jussieus, Hookers. Sir Walter Scott was a seventh son; John Wesley was one of nineteen; Tennyson one of seven.

The average size of the family among well-

educated people, who illustrate acquired individuation at least, is usually small—under two among college-bred gentlefolk in the United States—but it would be rash to conclude that this is the expression of a constitutional decrease of fecundity. It is probable that a reduction of fertility among the highly individuated may be in part due to the frequency of marriages that are not love marriages, to the frequency of late marriages, to selfish or timid non-maternity, to deliberate evasion of parentage, and even to overstrain in early efforts after self-realization. But this is not evidence of a constitutional antithesis between high individuation and reproductivity. The strongly individuated Brahmins and Rajputs of high caste are said to show no dwindling fertility.

In addition to factors already indicated, it should be noted that improved conditions of life tend to lessen multiplication indirectly, for new interests divert the animal nature and better housing lessens the provocations to sensuality. A reasonable spacing out of births

is more likely to be affected, and the total number of children is less likely to be large. Without denying the occurrence of types who are constitutionally sterile, or relatively infertile, or with strongly inhibited sex-impulses, we would say that almost nothing is known as to their relative frequency or as to their increase or decrease in successive generations; and that apparent infertility among the highly individuated can be in great part accounted for as an indirect result. There is very little evidence that heightened individuation brings about lessened reproductivity as a physiological consequence.

§ 5. *Fluctuations of Fertility*

The biologist is familiar with the phenomenon of fluctuations of population among plants and animals, and is not inclined to take an alarmist view of either rise or fall of the birth-rate in mankind. Among plants and animals we see that conditions of prosperity tend to allow the river to overflow its banks.

Waves of life are observed, such as Mr. W. H. Hudson has so graphically described in his *Naturalist in La Plata*, but in a comparatively short time the steady flow adaptively regulated by ages of natural selection is restored—unless man has brought about some far-reaching disturbance.

The human sequence in ancient days is more or less clear. In a limited area the increasing population began to overtake the means of subsistence; the growing pressure was relieved by exposing the children, infanticide, abortion, occasional emigration, frequent wars, epidemics, famine; on the other hand, an increase in material resources, *e.g.* through irrigation, improved cultivation, made a gradual increase of population possible. Periods of impending overpopulation were followed by critical periods in which equilibrium was regained by expedients, often miserable, but sometimes progressive. Sometimes, as is well known, the population-equilibrium was sustained by differential rates of increase. There were more births than deaths in the country,

which God made; and there were more deaths than births in the towns, which man made; and the apologists for Providence in those days used to refer to this wonderful adjustment.

But in the course of the eighteenth century the pre-established harmony was dissolved in discord by the colossal change of the industrial era. It is one of the most stupendous facts in human history that the population of Europe, about 187 millions in 1800, was 266 millions in 1850, and 400 millions in 1900. In the nineteenth century the population of England and Wales was more than trebled (in 1789, 12 millions; in 1890, 38 millions). From one case we may learn all.

In considering the extraordinarily rapid increase in the population associated with industrialism, much emphasis has been laid on the economic factor—that big families *paid* both the workers and their employers. But there were at least three other factors. (*a*) In the early industrialism there were waves of material prosperity; these tend to lift men off their feet. But a slackening of grip and

restraint tends to raise the birth-rate. The most widespread prosperity was in the middle of the Victorian period, when the birth-rate reached its maximum of 36.3 per thousand. (*b*) But, as Mr. Havelock Ellis says: "The magnificence of this epoch was built over circles of Hell to which the imagination of Dante never attained." And when people lose heart and are reckless, excessive birth-rate may follow, just as from the opposite causes. We read in Exodus i.: "But the more they afflicted them, the more they multiplied and grew." (*c*) Moreover, in the latter part of the period there began to be notable advances in preventive medicine and hygiene. Man was entering into his kingdom—in controlling the death-rate. One must never forget the very important fact that since 1865 the duration of life in England and Wales has risen about a third.

Having recognized these three factors we are free scientifically to return to the vast importance of economic conditions. We cannot doubt that the unprecedented multiplication had in some measure to do with the fact that

children were sent out in tender years—one recalls the pictures in *Clayhanger*—to the factories and potteries and mines to increase their parents' incomes; and that the employers said Amen. Those who have gone deeply into Natural History say that foxes quite approve of large families among rabbits.

§ 6. *The Over-Population Cry*

Those who are greatly alarmed at the present reduction of the birth-rate should recall their own student days when they attended Over-Population meetings. The cry was that the world would soon be "too full of people,"—the words used in Greece two thousand years before. At these meetings much reference was made to Malthus, who advised his generation to avoid the terrible positive checks of famine, disease, infanticide, and war by practising prudential checks of postponing marriage and by disciplining themselves in moral restraint after marriage. Malthus did not realize the possibilities of

increasing the food-supply (Mendelism alone will serve for centuries!), or the possibilities of more or less artificial birth-control. Since moral restraint after marriage is apt to defeat itself, the most practicable piece of advice Malthus gave amounted to "marry late," and most biologists are agreed that this advice was racially and individually very bad. The fittest fathers are not those who wait till they are past their prime; great disparity of age between the parents often means unhappiness; other things equal, those children have the best chance whose youth is spent with young fathers and mothers; and much more might be said without supposing that the bridegroom has not been equal to the task of self-control which the marrying late involves.

At such meetings we remember there was often some considerable misunderstanding of Darwinism, for there were some who said: "Let us not interfere with Nature's sifting; the survival of the fittest, don't you know." In spite of Darwin's express warning, it was assumed that famine, disease, infanticide, and

war may be trusted to sift in a progressive direction. There were also more excusable misunderstandings of Herbert Spencer's doctrine, and the "old woman who lived in a shoe, and had so many children that she did not know what to do," was told that she should really have been more individuated. Finally, from James Mill to begin with, there were whispers of various means which might be employed after marriage to keep down the family. There was truth and fallacy, we think, in all the suggestions backed by the authority of Malthus, Darwin, Spencer, and Mill; we need not go into this, for everyone knows what happened. The tide was turned.

§ 7. *The Decline of the Birth-rate*

The tide turned, in 1877 in England, while men were arguing how to stem its advance. The birth-rate per thousand of the population was 32 about 1850; it rose a little (helped by more thorough registration) to its maximum 36.3 in 1876, the year of the Bradlaugh-Besant

trial; it has fallen to about 24 per thousand. This movement of decreasing birth-rate, in which France led the way, is now common to all the more highly civilized nations.

A perusal of a good deal of literature leaves in the mind several impressions, which have considerable, if not convincing, backing of facts behind them. (*a*) The decline is most marked in areas where the highest standard of living prevails, and *vice versa;* thus Dr. C. Killick Millard, in his effective address on "Population and Birth Control" (1917), notes that while the birth-rates of Hampstead and Shoreditch were in 1881 almost the same, 30 and 31 respectively, "in 1914, Hampstead birth-rate had fallen to 14.8, whilst that of Shoreditch remained at the old figure. The same tendency exists in almost every town."

(*b*) The decrease is much more marked in the upper and middle classes than among the poor, much more marked in certain occupations and vocations than in others. In a table of comparative fertility for England, which refers only to women of child-bearing age, the

four occupations at the top end are coal-miners (126.4), agricultural labourers (113.4), boiler-makers (110.1), farmers (100.5), the numbers indicating proportions to a general population-fertility taken as 100. The four at the lower end of the list are Nonconformist ministers (79.8), Church of England clergymen (72), teachers (70.3), and doctors (64.7). Generalizations contrasting skilled and unskilled workmen are extremely hazardous.

(*c*) The smaller the number of rooms the larger the family tends to be, and the death-rate among infants tends to be highest where the birth-rate is highest. Making some noteworthy exceptions, *e.g.* for coal-miners who seem, on the whole, to be men of good physique, Dr. Millard writes: "It appears undeniable that poverty, degradation, inefficiency, ignorance, overcrowding, almost everything, in fact, that in human judgment tends to disqualify for parenthood, are just the factors nowadays which too often co-exist with large families." The biologist is inclined, however, to plead for discrimination between the con-

stitutionally disqualified and those whose disqualifications are superficial,—modificational in fact, and therefore not, so far as we know, "transmissible."

§ 8. *Probable Causes of the Reduction of the Birth-rate*

The causes of the fall of the birth-rate are being investigated, and we cannot do more than indicate probabilities. The answer is likely to be multiple, for the birth-rate depends on many factors, and these are variable. It depends on the age-composition of the community, on the number of wives under forty-five, on the age at marriage, on the duration of marriage, on the loyalty of husband and wife, on the amount of illegitimacy, on the economic conditions which affect control either through continence or through some evasion of parentage, and on some other factors like alcoholism and reproductive diseases. Nutritive factors do not seem to be directly important; the degree of mental development does

nor seem to have much, if any, direct effect; differential decline in fertility with increase of individuation is improved. The impression among careful students is widespread, that the reduction of the birth-rate is mainly due to intentional restriction of births, to deliberate birth-control. The Registrar-General for England has made the important statement that not more than about 17 per cent. of the decline in the birth-rate can be accounted for as the result of abstinence from marriage or of postponement of marriage, but that nearly 70 per cent. of the decline must be ascribed to voluntary restriction.

§ 9. *Evil and Good in the Decline of the Birth-rate*

Many thoughtful students have the foreboding that the decline of the birth-rate will endanger the stability of the British Empire. (1) But much depends on how far the decline goes. If there should begin to be an excess of deaths over births, that would be ominous

indeed, but a considerable decline in the birth-rate may strengthen a nation by raising the health-rate and lessening the strain of domestic anxieties. (2) The decline in the birth-rate is now almost a general phenomenon in civilized countries, though the amounts differ considerably. If it extends as it is doing it will not greatly alter the numerical proportions of nationalities. (3) One of the conditions that makes a nation a menace to others is a high birth-rate accompanied by a low death-rate. (4) Just as birth-control in a family is relative to many conditions, such as the health of the mother, the vigour of the children, and the prospects of auspicious launching in life—conditions which may change as years pass—so the problem for nations is relative to conditions. When the land is crowded, when openings are few, when unemployment is rife, and distress is at the doors, restriction of the size of families might increase national stability; but when numbers are dwindling or have been reduced out of proportion to their replacement, when new opportunities of industry are offered,

when new countries are opening out, when new discoveries greatly increase material resources, when there is vigour and mastery, then it might be wise to harken to the old counsel—"Be fruitful and multiply." Neither for the family nor for the nation have we to do with mutually exclusive alternatives.

But a second reason for foreboding is found in the fact that the decline in the birth-rate is differential, affecting certain sections of the community more than others. The less desirable, it is said—the thriftless, the careless, the unreliable—tend to be the most prolific; the more desirable—the thrifty, the educated, the controlled, those who care—tend to be the least prolific. If this is quite certain, does it not point to inevitable deterioration? (1) But there is, in spite of all hygiene, a high death-rate among the thriftless. (2) It is absurd to talk as if the desirables and the undesirables could be distinguished at a glance. Many people who have lost grip and heart were made, not born, undesirable. It takes a lot of different kinds of men and women to

make a world and keep it going. The production of the fit and of the remarkably able (take Faraday, for instance) is not a monopoly of any class. (3) It has also to be remembered that all measures implying increased control of life work from the more thoughtful to the less thoughtful, and spread gradually.

Thirdly, many wise men in recent years have said that they are less afraid of the decline of the birth-rate than of the methods of artificial restriction, by which it is said to be in greater part effected. It is plain, however, that modern preventives or contraceptives, which keep new lives from beginning, are less to be deprecated than abortion and infanticide. As to dangers to health that may be involved, it appears that these are in a process of being reduced, and against them must be set the deterioration of health involved in too frequent maternity. Perhaps the greatest danger is that the evasion of the responsibility of offspring may promote sexual intemperance.

Fourthly, some thoughtful critics have said that what fills them with foreboding is not the

fact of the reduction of the birth-rate, nor its unequal incidence, nor the method of birth-control employed, but the *motives* behind, since these are apt to be selfish. It is difficult, however, to discover motives, and many motives are mixed. One is tempted to think that there is a good deal of selfishness behind the empty cradle and the celibate club, but it is very difficult to make verifiable statements. What we have often to do with is not an empty cradle, but keeping the cradle from having a rapid or long succession of tenants. What we have often to do with is birth-control, because of the risk of not being able to do well by the children, and because of the burdensomeness of too frequent maternity—neither of them deplorable motives.

It seems to us that the good side of the reduction of the birth-rate deserves more consideration than it usually receives. It may tend to improve the health both of children and mothers; it may tend to substitute quality for quantity; it may make life less anxious, more secure, and with greater possibilities of

fineness. Associated with birth-control, it makes earlier marriage more practicable; it facilitates non-parental marriages; it makes for the independence of women and increases their opportunities of self-development. It will probably work against war, of which nations with a low birth-rate tend to be most intolerant. Personally, we share the view of Mr. Havelock Ellis that birth-control within limits makes for progress and is likely to continue to do so, being not "race suicide" but race-saving.

Envoi

We must not, however, look at things too biologically; and if we are forced to methods that by their very nature are not more than physiological we must counteract these by a heightened idealism. We are mind-and-body creatures, and the greatest thing in human life is love. If we jettison this, we are sacrificing one of the treasures that makes our voyage worth while. If the mode of life and thought

we are inclined to acquiesce in tends towards a mere natural history view of marriage and children, we must correct it. While we must not allow the word "artificial" to be a bogy, we know that the substitution of mechanical control for moral control can never be regarded with *entire* equanimity. We must, to save ourselves, cultivate counteractives to mechanization, for if we lose the chivalry and tenderness of lovers, the joyousness of the springtime of the heart, the adventurousness of early marriage or meagre material resources, and the delight of having children while we are young enough to sympathize with them, we are missing some of the fragrant flowers of life.

II

By Professor Leonard Hill, M.D., F.R.S.

Throughout the material world infinitely great, stars, planets, and infinitely little, molecules and atoms, no less than throughout the living world there takes place an endless cycle of growth, birth, decay.

In the living world the whole structure of the organism, plant, or animal, is designed for two purposes: first, the securing of food and so growing to sexual maturity; secondly breeding.

Living matter exists in the cellular form, either as unicellular organisms of microscopic size, or as congeries of multitudes of cells grouped into organs which subserve different functions. The different forms of cellular life grow assimilating food substance and absorbing energy from the environment until the balance of energy within the living substance

impels the cell to bud off a part or divide, each bud or division then repeating the process.

Nothing but living matter can organize the materials and forms of energy of the non-living into the living world. Each living cell (of microscopical size) possesses a type of energy which is so attuned to the environment that it retains certain attributes of structure and function and transmits these to its offspring—heredity characteristics. The environment however influences the growth and development, so that no two individuals are alike. The variations which arise may favour existence and propagation of the variants, help them in the struggle for existence, or be against them.

When a unicellular organism is placed in a drop of water it may divide into two, and the two may become a multitude, but finally the stock becomes exhausted and dies off. If, however, some of this stock be mixed with some of another stock of the same species, individuals of the two stocks may fuse and become one, and when this happens the vigour of life and power of multiplication is restored.

A refreshment and strengthening of the race is brought about by such occasional conjugation.

Cells divide after a series of striking changes have taken place in the nucleus and cell protoplasm which the microscope reveals.

The living substance of the unicellular animal living in water carries out all the functions of taking in food and oxygen and excreting waste, moving, feeling, and propagating by division.

In the higher animals myriads of cells congregate together and live a co-operative life, each inevitably subserving certain appointed ends fixed by its environment, each kept in place by struggle with its fellows, just as men in a city. A circulation of blood conveys nutriment and oxygen to all the cells; these are the digestive organs, the metabolic and excretory glands, the breathing organs, the nervous system, and the sexual organs which are set aside with the special function of propagation.

In the higher organisms conjugation is imperative, and male and female have been evolved to secure it, the male producing the spermatozoon, which actively seeks and fer-

tilizes the female element, the egg or ovum, which passively receives the spermatozoon and, having conjugated with it, divides into cells which multiply and develop all the organs and bodily structure of the species, both the male and female influencing the offspring in hereditary characteristics. In plants the male element is the pollen and the female the ovule, and here again the pollen actively fertilizes the ovule.

The ovum is a minute mass or cell of fluid substance called protoplasm, and comparable to the raw white of an egg. The ultra-microscope shows the fluid to be crowded with granules of various sizes and nature in active vibration. The ovum, like other cells, contains a nucleus different in structure and chemical nature, and essential to the life and dividing power of the cell. The spermatozoon has a head containing nuclear material and a long vibratile filament, by means of which it can actively move through a watery liquid of suitable composition.

The sexual apparatus in the male consists

of the testes, in which the spermatozoa are produced, certain glands, the prostate, etc., which aid in the formation of the seminal fluid, and the intromittent organ, by means of which the semen is introduced into the female during the act of sexual intercourse.

In the female, the apparatus consists of the egg-bearing organ or ovary, the womb, or uterus, in which the child is nourished during the first nine months of growth, the oviducts or Fallopian tubes which conduct the egg to the uterus from the ovary, and the vulva and vagina into which the penis is introduced during sexual intercourse, and through which the child passes from the uterus on birth. The female generative organs undergo on and after adolescence a series of periodic changes at monthly intervals—the process of menstruation, which ceases about the age of fifty when the woman loses the power of conception. Menstruation also ceases during pregnancy and usually while the woman is suckling a child.

Ova ripen before each period and pass down

the Fallopian tube to the womb, there to be fertilized by the spermatozoon mayhap, or unfertilized to perish. The womb refreshes itself at each period by a cycle of changes similar to those which occur in domestic animals at the time of "heat," a time when sexual attraction of the female to the opposite sex is increased by flushing of the vulva and by smell and an impulsion thus given to fertilize, which is in abeyance between the "heats." Before her period, a girl becomes most attractive and blooming, during it the contrary, and sexual intercourse is then forbidden by Mosaic law; during menstruation a woman may become more irritable, difficult, crotchety, less efficient as a worker; some women suffer pain and disturbance of health. In some the signs are slight and unnoticeable. The womb casts off the outer portion of its lining and renews this, a preparation probably for the implantation of an ovum and development of the structure which nourishes such if fertilized.

If the ovum is fertilized, profound changes take place both in the temperament and bodily

conditions of the mother, and while the womb develops the organ which nourishes the fœtus, the development of further ova and menstruation are kept in abeyance.

These changes are connected with the growth of a structure in the ovary, which develops out of the cells surrounding the place from which the ovum escaped.

The breasts develop, and the whole nutrition of the body of the mother alters to meet the demands of the child.

In the case of the spinster who cannot conceive, or a wife who prevents herself conceiving, each menstrual period ends, so to speak, in a disappointment of all these organs which undergo change on fertilization. In consequence of the non-fulfilment of desire and the physiological functions of the sexual organs, the sexual processes become deranged in many, and painful menstruation occurs, the breasts atrophy, the beauty is lost. In the case of the unmarried, the rose, blushing uncared for, fades away. The temperament either sours, or becomes turned to works of mercy and de-

votion other than motherhood—some becoming nuns, others hospital nurses. Other women become factory hands, approximating to the sterile workers of the bee community. Some few become sexual perverts and feminists and like the worker bees come to hate the drones.

The suppression of natural sexual impulses is the great cause of nervous disturbance of health called hysteria. In the war the suppression of the natural instinct for self-preservation was the chief cause of nervous debility; in peace the suppression of sexual desire is a chief cause.

Non-satisfaction of the natural sexual instinct leads many to abnormal sexual practices, self-abuse practised by both sexes, harmful in so far as it affects the nervous temperament and afflicts the indulgent with feelings of unworthiness, etc.

Domestic animals of one sex confined together no less are impelled to attempts at sexual perversion and abuse.

Medical experience shows that the most

virile men have strong sexual instincts and satisfy these—for example, the best fighting air-pilots.

It is untrue to teach that abstinence from sexual life does no harm. Such doctrine is taught by old men, worn out, who have forgotten their youth and the spring of the young blood, or repent of excess, or by those who are born with a small development of the sexual organs and little desire.

It must be borne in mind that the sexual glands modify the growth and development of the whole body and character; the boy at adolescence acquires a bass voice, from growth of the larynx, muscular development, growth of hair, alteration of character; the emasculated, or spayed, animal is sleek, lazy, peaceful, and puts on fat.

The male animal is developed not only attractive, but of an active, fighting nature, so that the best stock should win the female and propagate the race; the female is developed attractive to the male and with organs for nourishing the growth of the embryo.

It is a remarkable fact that fertilization of the ovum can be imitated by artificial means, *e.g.* by modifying the physical and chemical conditions of the ovum. Sea-urchin eggs can be caused to develop by adding traces of certain salts to the sea-water in which they float; a frog's egg by puncturing it with a glass needle. Thus a live frog has been raised from an ovum unfertilized by the male element. A feminist author knowing these facts and hating man has gone so far as to write a book in which she looks forward to women in the future conceiving without the aid of man—an immaculate conception!

The acme of life is reached when breeding takes place, and many insects after fertilization and egg-laying die. The dragon-fly, after many months spent as a grub, mates in a few hours of glorious flight, then dies.

The drive of the sexual instinct may lead to death in the very act of fertilization, *e.g.* the drone whose sexual organs are torn from him when he mates with the queen bee at the zenith of the nuptial flight into the azure of the sky,

and dies as the reward of winning the race. In the autumn drones are driven from the hive to die by the sterile female workers. The bees have developed an amazing community—one fertile queen which lays thousands of eggs for two or three years, a few males or drones, and hosts of sterile workers. The queen bee keeps within her the store of living spermatozoa received by her in the one nuptial flight, and uses this only to fertilize eggs which are to become workers, or queens. The queens are developed at the will of the workers from a worker egg by a large supply of bee milk, a food of precious virtue.

There is a species of spider wherein the male is so small that he has to warily approach the gross-bellied female or he is caught and eaten for his awkward gallantry.

The higher animals have not only to produce their young, but nourish them through long periods, so as to start them successfully on the war of life, both male and female sharing in this, and thus they live long and develop cunning in securing food and shelter and warding

off the ultimate fate of all—death, death which is probably brought about by the accumulation in the body of waste products which hamper and finally choke the living cells, rendering them defenceless against the invasion of microbes.

Man has carried the care of the young to the greatest extent, having to face not only dangers natural to all life, but the struggle with his fellow-men, and has evolved co-operation—the social instinct—to balance the struggle between individuals. With the evolution of the cunning of his hands and brain man has built up all the defences of civilization; handing down traditional experience not only by speech but by writing, finally arriving at the science and art of modern civilized life; elaborating not only all means of receiving food, shelter, warmth, through co-operative work, but means of amusing and interesting himself in leisure hours; the communal interest finally culminating in the establishment of monogamy and the family life, and the teaching of love and self-sacrifice, and the doctrine,

"Whatsoever ye would that men should do to you, do ye even so to them."

So lavish is the propagation of life that any organism unchecked would soon fill the earth. It has been estimated that a single unicellular organism by successive division in five years, if none of the progeny were destroyed and food for growth were available, would form a volume of living substance ten thousand times the volume of the earth!

While the propagation of the young is carried out by nature in most prodigal scale, the struggle for existence keeps all within bounds. Tens of thousands of eggs are laid and hatched, and all except the very few fall a prey to others, or to untoward conditions of the environment. Thousands and thousands of tadpoles reach the young frog stage and march from the pond, where some dozens of frogs have laid their spawn, over the grassy bank; but how few ever reach maturity, and how many tadpoles have already met their fate before ever reaching the frog stage? Nature cares nothing for the death of myriads,

as she evolves in ceaseless kaleidoscopic change.

The infant death-rate of man, in conditions where ignorance is rife and the environment bad, reaches 250 per thousand. In big cities it may be 170, in the best educated classes living in a garden city 30.

Man, having learnt to secure food by barter and transport and to guard his offspring through knowledge, has occupied in millions certain parts of the earth. Conditions in these places of dense population have become so difficult, from mere density and crowding, that man now seeks to secure the joys of the act of fertilization and attain to the comforts of married life, and, at the same time, to escape the trouble and worry of raising offspring.

Infanticide has been practised by man, and still is by the Terra del Fuegians, who have to keep their birth-rate down to their food supply.

The Lacedæmonians chose the best, and exposed the less worthy infants in a valley, according to the directions of the State au-

thority, which superseded the natural rights of the parents.

An African tribe has selected the finest young men as stallions and educated them to breed and exalt the stock, mutilating the others so that copulation took place without fertilization, the seed escaping outside.

The crowded city life in itself reduces fertility and lowers the birth-rate apart from the use of artificial means.

Those who spend much time actively engaged out of doors and eat natural foods, not the products of the miller and canner, are the ones who remain most virile and breed the best stock. Those who suffer most from nervous affections, depression of spirits, and unhappiness, are the sedentary people who spend their time in stagnant atmospheres indoors, atmospheres which, as the writer has shown, have lower cooling and drying powers than those out of doors in humid tropical climates, where women are known to suffer health and lose fertility.

Of enormous importance to health of mother

and child are the vitamine content of the food, and the incentive to appetite of open-air exercise.

Sterility is common among milch cows wherever large numbers are brought together and intensively fed for breeding and heavy milk production. The higher the dairy development of the cow and the greater the restraints of an unnatural environment the more the failure to breed. Lack of balance in the ration, gross overfeeding, food shortage, increases sterility and abortion. Of twenty-four young men fed on a low war ration, twenty-two acknowledged they had lost sexual desire. They dreamt of food, not of love.

What an effect tenement dwellings and industrialism as hitherto carried out has on the race is shown by the figures following:

The Chief Medical Officer of the Board of Education reports that not less than a million children of school age are so physically or mentally defective as to be unable to derive reasonable benefit from the education the State provides. In Finsbury, he says, the

death-rate of infants varied from 41 to 375 in the sub-areas, the death-rate being highest where there was the highest percentage of poor class tenements and low standard of social life.

Dr. John Brownlee finds there is sixteen years' difference between the expectation of life at birth in a big city and the healthiest districts. At the age of five the difference is eleven and a half years. Twenty-one per cent. of children in county boroughs of the north die before the fifth year, and 9 per cent. in rural districts of the south.

At least a million recruits, said the Prime Minister, were found unfit for military service. Between the ages of forty and fifty the death-rate in the unhealthiest districts is two to three times greater than in the healthiest.

While the death-rate has been lowered generally, the relation between density of population and high mortality established many years ago by Dr. Farr has not been altered by improved sanitation, by good drainage, pure water supply, etc.

The high mortality of children is due to excess of respiratory and alimentary diseases, particularly the latter.

While proper feeding is of paramount importance, two factors must be considered: (1) the right choice of food; (2) the need for food set up by the expenditure of bodily energy.

The cooling and evaporating powers of the air are closely connected with the causes of high infant mortality, these acting both on the skin and respiratory membrane. Cool morning air is the natural stimulus to activity and appetite, to deep breathing, active circulation, thorough oxygenation, and good digestion. Cool air when breathed promotes evaporation from, and flow of blood and lymph through, the respiratory membrane, the natural defences against infection.

I estimate a man camping out of doors in cool weather, and taking several hours' hard exercise, may have almost a ten times greater flow of blood and secretion through his respiratory membrane than one living in a warm humid tenement. In the latter the infection

from dust and saliva spray from "carriers" of disease is very great; in the former nil.

Physiological research has proved conclusively that, apart from the spread of infection by "carriers," it is not the chemical impurity, but the physical conditions of close air which make for discomfort and impoverish health. It is not excess of carbonic acid, nor lack of oxygen, nor the presence of organic impurities which affect us in a crowded room, but the heat and moisture of the air. The victims of the Black Hole of Calcutta died not of suffocation, but of heat stroke.

I have introduced an instrument, the kata-thermometer, by means of which there can be measured the cooling and evaporative powers of the air exerted on a surface at body temperature.

Exposure to wind has a most potent influence on the cooling and evaporative powers, an influence which the thermometer fails to indicate.

The open-air workers and agriculturists, fishermen, etc., are then exposed to a greater

cooling and evaporative power than citizens who dwell in tenements, travel in crowded conveyances, work in schoolrooms or factories, eat in canteens, seek amusement in cinemas. It is the lack of windage which largely explains the correlation between density of population and high mortality and morbidity.

The tenement baby overclothed and confined indoors by the mother for fear of its catching cold, and to save trouble under difficulties of tenement life, dies from digestive, nutritive, and respiratory troubles brought on by infection in stagnant, warm, humid atmospheres, and by bad feeding. Nothing is done to secure the natural massage of its belly organs by outdoor exercise and the deeper breathing excited thereby; to maintain the circulation of the blood by the action of the muscles during such exercise and by the hard tone of the body which results from such exercise; to stimulate combustion and a full utilization of the food, and so secure a clean bowel, free from excessive bacterial fermentation and toxic products of the same, and a keen appetite

which will ensure the securing of enough of the rarer building stones required in the food for growth and health.

The want of vitamines, which exist in fresh natural foods, milk and butter from grass-fed cows, succulent fresh young garden produce, results from the present city conditions, and causes "deficiency" diseases, such as scurvy, rickets, with the decay of teeth, with an enormous amount of ill-health which is not actually identified as disease.

In Glasgow, some 50 per cent. of the children of the poor suffer from rickets, and 50 per cent. of the population live in tenements. In garden cities there is very little rickets. Eighty to ninety per cent. of the school children in London suffer from decay of the teeth. Over-feeding of the tenement babies with dirty cows' milk brings about fatal diarrhœa. Mothers' milk is defective because the mothers feed on a vitamine deficient diet. The older children receive, in place of fresh natural foods, separated products of the miller and refiner—white flour, sugar, vegetable oil, margarine, and canned

foods — from which vitamines are removed.

It is open air and exercise, good feeding, and well-regulated rest which convert weedy citizens into robust soldiers, which restore weakly children in open-air schools, and consumptives in sanatoria. Preventable sickness maims and kills as many, and causes as much economic loss as the late war. Garden cities then should be built. New sites should be chosen with beautiful surroundings, and with all the conditions that favour a happy and healthy life. The young should be educated in the discipline of taking pride in and keeping perfect bodily health, all receiving the education in strength and character that public school boys obtain on the playing fields.

The impulse to restrict conception should be strongest in the crowded tenements, and no doubt is among many harassed poor women who have to submit to the desire of their husbands. Not only forethought is wanting, but knowledge of the means, and money to afford the use of preventives. Thus the educated class tend to limit their families, while the

careless and thriftless breed. The weak-witted girl may have many illegitimate children, conceiving again as soon as she leaves the home for the fallen, or workhouse, where she was confined, while the genius limits his family to one. How many of the upper class have limited their sons to one, and lost their pride and hope in the war!

There is some danger then of the inefficient propagating more than the efficient.

There is a great disadvantage in the practice of limiting the family to one child; there is danger of the only child growing up a prig or neurotic; the tumble-up struggle of big families is good if not too hard; the Cinderella, the Aschenputtel, the Benjamin of the stories win the prize. The single child is over-coddled, made a weakling, over-developed in sensibility, the parents, not children, affording his interest and amusement.

But who can wish to see children born in slum tenements?

If woman had been evolved as an egg-laying animal like a bird, how easy and simple the

control of population, and what a different world—women free from menstruation, pregnancy, and the pangs of birth, the eggs selected and hatched in incubators!

In consideration of the methods used to prevent conception, there is, first, abstinence from intercourse. Every excitement is given to youth by the heightening of sexual attraction through clothes, the showing of ankles, low necks, etc. The woman impelled to seek a mate uses every artifice to attract. The present fashion impels the young girl, whose complexion exposed to English climate should be perfect in colour and texture, and is spoilt by indoor sedentary life and bad feeding, to powder and paint like the faded harlot of the streets.

The one effectual means for keeping down the vigour of sexual desire is by a wisely regulated diet, plus hard physical exercise and occupation. The boy who aims at excelling at athletics and at work, who has his energy fully taken up and recognizes the need of keeping perfectly fit, is not troubled with

overpowering desire. Overfeeding and laziness are great incentives to sexual immorality. Wet or fine, young people should take hard exercise. If too wet for games, let them take an hour or two's walk in the stinging rain and driving wind, and return filled with glow of health and joy of clean life.

The young should not watch but should play games. The present system, school without adequate playing grounds or daily discipline in vigorous outdoor exercise, with the cramming for examinations, entailing home work and long hours of sedentary indoor life, debilitates hundreds of thousands in body and character.

As the fulfilment of the sexual instinct is gained by man by the act of copulation, in woman by childbirth, the use of preventives tells far more against the woman.

Both are affected in character by the use of preventives, through the lack of the discipline which comes of upbringing children, the development of qualities of the unselfishness and sacrifice, the sharing in children's games and renewal of youth thereby, etc.

The woman who uses preventives tends to lose her beauty early, becomes thin and neurotic.

The woman with strong maternal feeling suffers far more than those with weak feminine characteristics.

Each sex has within the body rudiments of the sexual organs of the other sex, and there are great differences in the degree of feminine and masculine characteristics. Some women may be compared to Buff Orpingtons, who easily become broody and make excellent mothers; others to Leghorns, who never want to breed.

There are vast tracts of the British Empire waiting to be populated by the British race. Let the youth of the overcrowded cities then emigrate and secure room for a healthy, natural, sexual life, a more virile character, and far greater happiness.

ECONOMIC ASPECTS

I

By The Very Rev. Dean Inge, D.D.

Social politics and religion, the two most important subjects on which the human mind can exercise itself, are also unfortunately the two subjects on which passion and prejudice most of all run riot, and on which the voice of calm reason has least chance of being heard. The question of population touches both alike; it is intimately concerned with social politics, and no less intimately with sexual morality, in which Christianity has from the first maintained an uncompromising conflict with secular practice. We cannot therefore be surprised if the majority of the public seem unable to treat it in a judicial temper. There is the further difficulty that the subject has long been

taboo in polite society, so that the most surprising ignorance prevails about the rudimentary facts upon which any rational discussion must be based. Happily, this embargo is now being taken off, so that there is more hope than ever before that the public may be able to consider the question in all its bearings, if the will to form a sound judgment exists.

The poet Schiller said: "While philosophers are debating about the government of the world, Hunger and Love are performing the task." Hunger and Love are indeed the motive forces which "make the world go round." In primitive societies both are unregulated; civilization, if it regulates the first, must at last be driven to regulate the second. In barbarous countries numbers are kept down by war, disease, and famine. Constant fighting destroys the balance of the sexes; the medicine man does nothing to reduce the mortality from disease; and failures of the food supply recur periodically. In countries where the milk of animals cannot be procured, every baby whom its mother is unable to

suckle necessarily dies. Population in these barbarous conditions generally remains nearly stationary, except among pastoral nomads, who can utilize child-labour, and who enjoy a remarkable immunity from microbic diseases. These wandering tribes used to swarm periodically, like bees to the extreme inconvenience of their settled neighbours. In countries like ancient Greece, where the population was healthy and the soil poor, and in modern China, which is peopled up to the extreme limit at which it is possible to live at all, systematic infanticide is practised as a sheer necessity. But wherever we look, except in the rare instances when immigrants find an empty and fertile country, it is nowhere possible for the natural rate of increase, which of course is in a geometrical ratio, to be maintained. The natural rate of increase would double the population every twenty or twenty-five years. At this rate, the British Isles would have to support some 750 millions of human beings before the end of the next hundred years.

Voluntary checks on parenthood have always been practised, though not to the extent which is now to be seen in all civilized countries. But until quite recent times, premature death was the chief means by which an equilibrium was kept up. All through the Middle Ages there was some drain of the rural populations into the towns; but the old walled town was such a hot-bed of disease that the urban population did not grow. The infant mortality was enormous, as may be seen by consulting any old pedigree. Dean Colet's father, a wealthy Lord Mayor of London, had twenty-two children in thirty years, of whom the future friend of Erasmus was the only one to reach maturity. This is no isolated instance. Parents seem to have regarded this dismal procession of cradles and coffins as a dispensation of Providence, and bore lightly the loss of children for whom there was no room. In very many cases, as family records show, the mother also died early, worn out by excessive child-bearing. Luther, in a brutal passage, says, "What matter? It is what she is there

for." But the time came when there was room for a large increase in population, and (for reasons which I think have not been made quite clear) the children began to survive. The discovery of machinery on the one hand, and of new sources of abundant food supply on the other, produced what is known as the industrial revolution. We exchanged our manufactures for food, and the coal countries, among which Britain led the way, became gigantic workshops, depending for their existence on being able to supply other countries with commodities which they could not produce so cheaply themselves. To this system we owe our great towns, our great fortunes, and our social unrest. As the population grew, and the law of diminishing returns asserted itself, there came more speeding-up in manufacture, more exploitation of overseas possessions, and more concentration in towns. Meanwhile, improved sanitary and medical science more than doubled the average expectation of life, as compared with the Middle Ages: during the last sixty years the gain has

been from 30 to 35 per cent. So great an improvement in the survival-rate could not be absorbed by increasing trade; for though we had the advantage of a long start, other nations were becoming serious competitors. The "Expansion of England" was necessarily slacking off. So the birth-rate began to fall shortly before 1880, and till the beginning of the war the decline corresponded closely with the fall in the death-rate. The net increase remained at its earlier figure, about 1 per cent. per annum.

During the nineteenth century, the pressure was partially relieved by emigration, without which this 1 per cent. increase every year could not have been maintained. There is still abundant room for more colonists, but this outlet will be available only if the governments of the Dominions wish to receive them, and organize schemes of colonization in co-operation with the home government.

But the dominant factor in the present situation is that the industrial revolution has led to a general discontent in the populations

of the large towns, whom it has gathered together under unnatural conditions such as have never existed before. We are witnessing a revolt against the whole system, at the very time when competition with other nations was becoming more acute. We are, as I have said, losing the advantages over our rivals which we have enjoyed since the reign of George III, and it is plain that industrialism in this country must in the future be conducted on unprivileged terms; in other words, the relation of wages to output must be that which prevails in the world generally. But it is equally plain that our working-class will refuse to accept this position. They will not be content even with the standard which existed when things were most prosperous. This revolt, which I am not concerned either to justify or to condemn in this paper, means nothing less than the destruction of urban industrialism in England, and with it must go the possibility of exchanging commodities for the food without which our present population cannot live. There may be a partial modification of the

present attitude of Labour; but it is not likely to go far enough to restore our pre-war prosperity, still less to maintain our former industrial ascendancy. The population, therefore, is more likely to diminish than to increase, and the arguments of militarists will have no effect in stopping a process in which Hunger, not Love, must have the decisive word.

These are the facts; and we cannot approach the moral aspect of the subject without first realizing what the problem is with which we have to deal.

But since moral choice is always made by individuals, we must consider what the usual motives are which lead married couples to restrict their families. There are two sections of the population in which little or no restraint is practised. These are: first, the reckless and largely parasitic people of the slums, who, having no pride, ambition, or self-restraint, produce very large families, their birth-rate being nearly forty per thousand. The other class consists of the miners, a prosperous and improvident set of men, much given to gam-

bling, drinking, and other amusements, and among whom—this is the important factor—the women do not contribute to the family budget, and therefore do not disarrange the finances of the household by pregnancy and child-bearing. Among other well-paid workmen the birth-rate has fallen heavily, especially in the textile trades, and others in which the wife is a wage-earner. The motive here is plainly economic; but we must also allow for the reasonable desire of the wife to be something more than a household drudge, whose working hours are far more than forty-eight a week. The agricultural labourer is often obliged to defer his marriage from the difficulty of finding a cottage. In the professional classes, where the drop has been most severe, the chief motives with the poor clerk and his like are sheer poverty, and the wish of the wife, who is often well-educated, to have a little time to herself. In the upper middle-class family pride is a potent motive. Parents wish their children to remain gentlemen and ladies, and desire to give them a good start in

life, which they may succeed in doing if they have only two or three to help. The incidence of taxation, and artificial competition created by State-aid to promising boys from the working-class, bear with crushing weight upon this class, and it is not surprising to find the lowest birth-rate among them. Doctors are proved by statistics to have the smallest families, then teachers, then ministers of religion.

So far, it does not seem to me that we have come upon anything that calls for moral censure, except that the public is culpably blind to the disastrous results of a social order which encourages the multiplication of the most undesirable section of the population—the people of the slums—while it penalizes and steadily eliminates the intellectual *élite*, who in this country are also, as a class, far above the average in physique. Family pride may perhaps be blamed from the highest Christian point of view, but it is a natural and certainly not ignoble sentiment. Social prejudices are, in point of fact, quite as strong among the wage-earners, though aristocratic

socialists know nothing of the numerous class-divisions among the poor. Still less can we condemn the revolt of the female sex from a *régime* which confined them to what the Germans call the three K's,—Kirk, Kitchen, and "Kids." Women have shown that they can engage profitably in almost every art and craft; they have proved equally that they have a right to share in the culture and intellectual life of the nation. These claims are reasonable, and must be granted; and they are incompatible with large families, except in exceptional cases. There is also another cause of the lower birth-rate which must not be overlooked. It is very common for medical men to tell husbands that their wives ought not to have another child for two or even three years. If this advice is complied with—and it cannot be ignored without gross want of consideration on the part of the husband—such families as that of Dean Colet's parents are impossible; and in the educated classes some degree of social condemnation falls on the husband, if he allows his wife to suffer in health by having

too many children. It is interesting to find that the Registrar-General is of the opinion that the slight diminution of cancer among women of child-bearing age is to be accounted for by the longer intervals which now separate the births of children. We come lastly to the rich leisured class, who are often accused of shirking their duties to the next generation from purely selfish motives. That such cases exist cannot be denied; but, from the national point of view, the mischief which they do consists chiefly in bad example, since their numbers are so small as to be almost negligible. Very often the fashionable lady is unjustly suspected: she has done everything in her power to become a mother, but nature forbids. It is of course possible that a more natural and less self-indulgent life would sometimes bring her into a normal state of health. There is, however, much need for exhortation, in all classes alike, against a self-centred individualism which is attractive to many persons, especially those of a timid, anxious temperament. We have other duties to society besides

the duty to make the most of our own lives. To make sacrifices for one's children is a form of self-denial which brings its own reward; and a woman, especially, who despises the honour and responsibilities of motherhood is sinning against nature, and renouncing what must always be the greatest privilege and glory of her sex. There are some, no doubt, who are called to benefit posterity by bringing ideas instead of children to the birth, and others who find their life's work in the service of causes which demand the sacrifice of domestic happiness; there may be some who are legitimately drawn by the Catholic ideal of ascetic virginity; but for the large majority, the high-road of marriage and parenthood is marked out as the right way in which they may serve their generation, and hand on the torch which they have received.

It remains to consider briefly the contention that it is wrong to interfere with the processes of nature. If this argument were pushed to its logical conclusion it would condemn celibacy, and prescribe early marriage as a moral duty

for all healthy persons. It seems to me that such a view in untenable. And yet there is a grave danger that familiarity with the laws of physiology may lead to a materialistic view of all sexual questions, which would have disastrous results on the morality of the nation. Those who at present are disposed to brush aside all the scruples of old-fashioned people about birth-control, may find in the near future that safeguards have been sacrificed which they would be glad to recover. The process of tearing away veils is destined to go further even than it has gone already. There is no danger, I think, to marriage as an institution; it is far too deeply rooted in human nature and social habit; but there may easily be a great outbreak of outwardly decent licentiousness, protected by the new methods of avoiding its consequences, and perhaps even a toleration of abnormal practices which Christian ethics largely diminished and drove underground. The subject is as difficult as it is delicate. Moralists can only insist on the exhortations of St. Paul to treat those natural

functions with "sanctification and honour, not in the lust of concupiscence," remembering the fine metaphor that our bodies are the temples of God, or of the Holy Spirit. It must be left to the conscience of individuals to apply this principle to their own married life. The high-minded man and woman will probably find that some degree of self-restraint is not only an excellent moral discipline, but also increases, by spiritualizing, the happiness of conjugal love. But no one who has had experience and received the confidences of others will advocate the complete separation of husband and wife for long periods, or even permanently; and short of this, abstinence is no solution of the problem.

It goes without saying that the destruction of life which has already begun is never justifiable, except to save the life of the mother. Experience shows that to legislate against methods of preventing conception, and to punish those who impart knowledge of this kind, has no effect except to encourage the practice of abortion, which is deplorably pre-

valent in America and in the North of England. We must rely on other methods, not on ignorance, to discourage undesirable habits, if we think that they are undesirable.

The whole problem is created by the fact that in the reproductive instinct we have the strongest instance of what Metchnikoff calls the maladaptions caused by civilization. Just as the human body contains (according to this savant) yards of tubing which the science of cookery has made superfluous, so the sexual instinct is far stronger than is necessary for the perpetuation of the species. A great part of human misery is traceable to this source. The remedy can only come from the resources of civilization itself, from the right use of the reason which in man takes the place of instinct, and enables us to look forward, and take precautions against coming dangers. It is probable that, when the food-producing countries have all been brought under cultivation, arrangements will be made to preserve an equilibrium between births and deaths all over the world. One of the chief causes of war and

economic distress would then be removed. But I do not think that this side of human life will ever be taken away from the sphere of morality and religion. Life is sacred at both ends; and the reverence with which mankind has always surrounded the mysteries of birth and death is no irrational survival, but a part of the respect which we owe to our common humanity, "made in the image of God."

II

By Harold Cox

When Malthus launched, more than a hundred years ago, the theory of population which has since made his name known throughout the world, he argued that a deliberate restriction of the birth-rate was necessary in order to relieve the pressure of population against the means of subsistence. It happened, however, that the publication of the *Essay on Population* was followed by a remarkable expansion of machine industry, with the result that in England the economic demand was for more, not for fewer, people. In particular there was an insistent demand in the manufacturing districts for young children to tend the new machinery. A wise government would have prohibited the employment of children so young; but governments rarely are wise, and as a matter of fact the increased supply

of children was largely due to the action of the State itself in first sanctioning a Poor Law system which encouraged irresponsible parentage, and then permitting the Poor Law Guardians to send wagon-loads of tiny children from the agricultural districts of the South to work in the factories of the North. In any case, it is true to say that the rapid increase of the population of England during the first half of the nineteenth century was the economic outcome of the development of machine industry. Large families were wanted to supply labour for the new machines, and in turn the new machines produced more than enough wealth to support the large families, though in the case of worst paid classes it is probable that the standard of living was temporarily lowered. These facts involve no refutation of the theory that population tends to expand up to the available means of subsistence; on the contrary they confirm that theory. But the facts did imply that the practical warnings of Malthus, so far at any rate as England was concerned, were for the

moment unheeded. In spite of widespread poverty, population was pressing less severely than before against the means of subsistence, because the means of subsistence were expanding even more rapidly than the population. Machine industry and world-wide trade were enabling us to support within our little island a larger population than before. It is not surprising that the Malthusian doctrine as a practical code of life was temporarily forgotten.

The subsequent revival of the Malthusian doctrine was due to the conscious desire of large sections of the population for an improved standard of domestic and individual comfort. Of necessity the average citizen looks at the problem of population not from the universal, nor even from the national, but from the personal point of view. Prospective parents do not worry their minds about the potential food resources of the universe; they are content to note that by prudence in procreation they can secure for themselves and their children a larger life than would be at-

tainable if the size of the family were unrestricted. The direct connection between cause and effect is here so palpable that no argument on one side or the other is needed.

This aspect of the problem was of course present to the mind of Malthus. It may indeed be described as the dominant motive of his Essay. He wished to raise the standard of comfort of the poorer classes by checking the multiplication of mouths. But he had to meet the opposition which every proposal for a reduction of the birth-rate encounters from people whose minds are dominated either by rigid theological dogma or by a vague socialistic sentimentalism. He therefore examined the general problem of world population in order to justify the primary proposition that it is the duty of parents only to bring into the world children whom they can afford to maintain in comfort. The same general considerations are involved today. The parents who, in ever-increasing numbers, are practising birth control for indisputable domestic advantages, find themselves criticized

from the outside by various groups of persons who even go so far as to assert that the reduction of the birth-rate is a national calamity. We are constantly told that there are vast areas of still undeveloped territory; that there are incalculable possibilities of scientific discovery which will render available for human enjoyment natural resources now largely or wholly wasted; we are warned that if our English birth-rate be reduced the English race may be swamped by races more prolific.

Even if these statements and warnings could be fully justified, they would constitute no reply to the theory of population as laid down by Malthus. His whole contention is that population ever tends to increase up to the means of subsistence, unless checked either by a prudential reduction of the birth-rate or by the positive evils which follow unlimited procreation. With a wealth of historical illustration he showed that those evils include disease, pestilence and famine, racial warfare, infanticide, and systematic abortion.

Thus stated, the Malthusian theory is so

obviously true as to be almost a truism. In all forms of animated life the inherent capacity for increase is practically unlimited. Malthus effectively quotes Franklin's saying: "Were the face of the earth vacant of other plants it might be gradually sowed and overspread with one kind only, as for instance with fennel; and were it empty of other inhabitants it might in a few years be replenished from one nation only, as for instance with Englishmen." By one means or another this inherent capacity for increase must sooner or later be checked. Even if, to take Franklin's illustration, all the other races of the world were to disappear so as to leave room for the English race to occupy the whole globe, it would still be necessary for that race, sooner or later, to cease from expanding. Nor is it possible to argue that the issue is so remote that it need not now be considered. For where a rate of increase is not progressively diminished, the volume of increase expands with ever-growing rapidity. To take a concrete illustration: the population of England and Wales in 1801 was 8,893,000.

In fifty years the population had slightly more than doubled, the actual increase being just over nine millions. If the same rate had continued, the population would again have doubled by 1901, but the number of persons added would have been not nine millions but eighteen millions. In the next fifty years the same rate of increase would have produced a further addition of thirty-six millions; then seventy-two millions, and so on, till in less than three hundred years from the present time, without any alteration in the rate of increase, the population of England and Wales would have grown to 2,295,000,000, or considerably more than the present population of the whole globe.

The arithmetical law which produces such results as these is ever operative and inevitable. It follows that as the volume grows the rate of growth must be diminished. All living things are compelled to observe this law. Take for example, a daffodil. On the second day after it has peeped through the earth its visible height will be more than double that on the first day. If the same rate of increase were

maintained, the humble daffodil, even before it was ready to flower, would have out-topped the highest oak. For this purely arithmetical but absolutely inevitable reason the population question cannot be honestly answered by the plea of postponement. The Anti-Malthusians may, of course, argue that the present rate of increase is not excessive for our present needs; they may even argue that it is too low. But no rate of increase, however low, can be maintained indefinitely, and therefore those who wish to give an honest answer to an eternal problem ought to be willing to say today by what means they think the rate of increase of the English race or of the human race ought to be reduced when the necessity for reduction can no longer be denied.

As a matter of fact, however, the problem is not theoretic and prospective, it is actual and practical. The inherent power of increase in our population is today being checked, and always has been checked. Both the prudential check of a controlled birth-rate and the punitive check of an exaggerated death-rate

are today operative, as they always have been. At no time in our history have all the members of our race brought children into the world, as rabbits do, to the full extent of their procreative capacity; at all times death has exacted heavy toll of infant life, and preventible disease has ever been rampant. Therefore no speculations about the unexhausted possibilities of the globe justify the refusal of the anti-Malthusians to answer the plain question: *Do you wish the potential rate of increase of population to be kept down by a prudential control of the birth-rate or by a punitive expansion of the death-rate?*

That there should be any doubt as to the reply to that question shows the extent to which human judgment can be warped by theological dogma. The control of the birth-rate, whether effected by the postponement of marriage or by the avoidance of conception, relieves women of the needless suffering of bringing into the world unwanted children; relieves the human race of the cost of rearing new beings who will never reach maturity.

More than this the control of the birth-rate elevates the human race by rendering possible the attainment of a higher standard of comfort for the families concerned. No doubt there are some parents in this and most countries with incomes sufficient to give a thoroughly good upbringing to all their children, even if the families range to ten or a dozen. But that is exceptional, and no social redistribution would appreciably alter the situation. An equal division of the total wealth of the nation among our whole population, though it would reduce enormously the well-being of the wealthy minority, would add but a small fraction to the available means of the great majority, even if the process of division did not sweep away the larger part of the wealth to be divided. There is not enough wealth produced to enable any large number of parents to give to ten or a dozen children the life of leisure and fresh air, of vigorous play and moderate learning, which has developed the splendid type of manhood embodied in Englishmen of the well-to-do classes.

Parents belonging to those classes have for more than a generation recognized this fact, and instead of straining their pecuniary resources, as well as the health of their womanhood, have had families of but moderate numbers, to whom they have been able to give a thoroughly good upbringing. Hitherto the masses of the population have not followed this personally wise and racially desirable example. They have till quite recently been content to go on multiplying in houses too crowded for comfort or decency; in narrow streets too narrow for the free entry of sunlight and fresh air; in towns too large for a really healthy life. The results are plainly visble in the contrast of feature and physique between the well-to-do classes and the urban masses. It is only necessary to watch a military procession passing through the streets, and to note the striking difference between the appearance of the rank and file and that of the majority of the officers, to be convinced of the effect of upbringing upon racial development. For we are all—apart from the few

aliens who have flooded in—of the same English stock, and men whose parents started at the bottom of the ladder are often indistinguishable physically or mentally from the descendants of aristocrats. There is no mystery about the matter. Throughout animal life we find that the highest types are the lowest breeders.

It may be argued, and often is argued, that if we reduce our population, there is a danger of our being overwhelmed by more prolific races. The argument is superficially plausible but effectively valueless as a plea for an increased birth-rate. Take the case of England and Germany. Before the war the annual rate of increase of the German population was far greater than our own, in spite of the enormous infantile mortality prevalent in Germany. During the war the German population has been reduced while the English population has grown, but in round figures the population of the German Empire still remains at about 66,000,000 as compared with about 46,000,000 for the United Kingdom. These figures alone

show the futility of attempting to engage in a procreation contest with the people of Germany. Even if we went back to the maximum recorded birth-rate for England and Wales, 34.6 per one thousand in 1876, and extended that rate to the whole of the United Kingdom, we should gain nothing, for Germany could, with the same birth-rate, produce nearly seven hundred thousand more babies per annum than we could. Is it indeed seriously proposed by anyone that the women of England should enter into a competition with the women of Germany to produce children whose final destination is to be the destruction of one another on the battlefield?

Take again the Eastern Asiatic races. If the birth-rate were the test of racial strength the peoples of India and China would long since have overrun the world. In both these great hives of humanity the masses of the population—partly as the result of social degradation, partly from a childlike obedience to religious dogma—pour children into the world without the slightest regard for their

prospects of maintenance. As a necessary consequence the children die like flies. Many of them, in China at any rate, are deliberately killed by their parents. A large proportion of those who survive childhood are permanently weakened in constitution because they have never been sufficiently nourished, and the mortality at all ages in Eastern Asia is far higher than among the less prolific races of Western Europe. From the point of view of racial efficiency the contrast is even greater. India was conquered by England at a time when our population was less than a fifth of what it now is, and was almost stationary. The higher type of manhood that is developed by control of the birth-rate will always be able to take care of itself against the lower types produced by unlimited procreation.

Thus the patriotic argument against birth-control falls to the ground. On the other hand, the domestic and personal advantages of birth-control are obvious. If a woman is called upon to have children as often as is physically

possible, her life is one long illness, and her children are denied that individual motherly care which is one of the most valuable elements in the rearing of fine types of manhood and womanhood. In addition, where families are large there must, in the case of a population like our own which is predominantly urban, be overcrowding both in houses and in streets. This difficulty cannot be overcome by any schemes of State housing, however many millions may be added to the national debt in order to provide compact workmen's dwellings at less than cost price. The proposed dwellings will not give to a large family the elbow-room and quiet which a small family could enjoy; nor will the schemes proposed appreciably diminish the congestion of our large towns with their never-ending noise and the incessant friction of restless crowds. Yet it is certain that if men in the mass are to attain to the higher ideals of humanity, they must not only have a sufficiency of food and clothing, they must also have space in which to move freely, quiet in which to think seriously. The mass

of our people—the democracy of England—today live in overcrowded houses, they travel to their work in overcrowded trams, and their leisure is spent on the packed benches of a picture palace after perhaps an hour of waiting in a queue outside the door. When illness overtakes them, the only change is from an overcrowded home to an overcrowded hospital. The children are given a smattering of education in classes too large for personal attention on the part of the teacher; their only playground is a walled-in courtyard or a narrow back street. In such conditions it is impossible to produce the best types of humanity.

But no fundamental change in the conditions can be effected as long as the poorer classes produce children without any regard to the available means for their support and upbringing. If the general level of humanity is to be raised, the poorer classes and the lower races must reduce their birth-rate as the well-to-do classes in the higher races have already done. Birth-control is in fact essential to human progress, for it is a necessary condition

for the improvement of the racial type. It is also, for purely arithmetical but none the less inevitable reasons, the only possible alternative to a high death-rate with all the human misery thereby entailed. Yet we still find quite a number of people opposed to the Malthusian doctrine.

Among the opponents of Malthusianism are to be found a few medical men, but their condemnation of birth-control carries little weight in the face of the statistical fact that the birth-rate among medical men is lower than that in any other class in the community.

The real weight of the opposition to birth-control comes from a section of the clergy of the established Church of England, and from practically all the clergy of the Church of Rome. Both these ecclesiastical groups preach the duty of unlimited procreation. Yet the clergy of the Church of England have ceased to have the large families for which they were once famous, and now rival the doctors in their low birth-rate; the clergy of the Church of Rome are celibate.

Ecclesiastical teachings with regard to birth-control is avowedly based upon theological dogma. The arguments on the subject will be found set forth very clearly in the *Report on the Declining Birth-Rate*, published by the National Birth-Rate Commission in 1916. From the evidence there published, it appears that some clergymen take the view that sexual intercourse between husband and wife is entirely reprehensible except for the purpose of procreation. This extreme view, put forward by the Bishop of Southwark, was not countenanced by other spokesmen of the Protestant churches or of the Church of Rome. Their general view was that the desire for sexual intercourse was a divinely implanted instinct, and might therefore legitimately be gratified, provided no "unnatural" means were taken to interfere with the Will of God by preventing conception.

Here, as in many other controversies, the word "unnatural" is used as a term of condemnation without any attempt being made to show in what way the course condemned is

contrary to nature. In the evidence referred to, the Christian churches, as represented by a committee of some of the Bishops of the Church of England and by Monsignor Brown, Vicar-General of the Roman Catholic diocese of Southwark, expressed their approval of sexual intercourse, after the wife has already become pregnant. Yet it might fairly be argued that such action is "unnatural," for it contributes nothing towards Nature's purpose, the maintenance of the race. On this point at any rate the ecclesiastical attitude is frankly hedonistic.

The same ecclesiastical authorities go further and positively recommend that, where husband and wife for any cause desire to limit their family, they should confine their intercourse to the period of the month when conception is improbable. This method of birth-control is declared to be "natural." (See pp. 358 and 403.) But is it natural that an act arising out of the promptings of a powerful animal instinct should be regulated by close scrutiny of the calendar? The real

reason why this particular method of birth-control should receive ecclesiastical approbation is given on pp. 386 and 401. It is there plainly stated that this method is legitimate because its success is uncertain. In other words no sin is committed in trying to dodge the Divine ordinance which connects sexual intercourse with procreation, provided only an off-chance is left for the Will of God to operate.

The more effective methods of birth-control are condemned as sins and characterized as "unnatural." Yet one of these methods is both simple and obvious, and has probably been practised by the different races of mankind from time immemorial. Man is part of nature, and it is part of man's nature to use his brain for the betterment of his life. Surely it is more "natural" to take simple precautions against the procreation of unwanted children than it is to wear clothes or to cook food.

But the real reason for the ecclesiastical condemnation of this and other effective methods of prevention is purely theological. It is defi-

nitely set forth by Monsignor Brown on p. 411 of the Commission Report. The whole matter turns on the story of Onan, as related in the thirty-eighth chapter of the Book of Genesis.

On account of that somewhat squalid story a large number of theologians in this country —who themselves admit the sexual instinct to be divinely implanted—condemn as immoral the gratification of that instinct except when accompanied by the risk of bringing into the world unwanted children.

SOCIAL AND RELIGIOUS ASPECTS

I

By Dr. Mary Scharlieb, C.B.E., M.S.

The importance of the subject of artificial limitation of the birth-rate cannot be exaggerated for not only the welfare of many individuals but the existence of the Empire itself may be at stake. The subject is much discussed at present, and with evident sincerity on both sides; but the more it is discussed the less, it appears, is the probability of agreement on the desirability or the danger of artificial limitation.

It is necessary in the beginning to recognize clearly the essential difference between the limitation of families by the use of contraceptive methods, and the limitation of the family by means of criminal abortion. All

decent people feel that criminal abortion is an offence not only against the laws of God and of man, but that it is also an outrage on common humanity and decency. Unfortunately the concensus of opinion goes no further, and there are many members of the medical profession, and many people who are sincerely anxious to promote public morality and well-being, who fail to see anything objectionable in the use of contraceptives, and who indeed, in some instances, consider that such practices are desirable in the interests of overburdened married couples.

In considering the subject it is necessary to bear in mind that both parties to the controversy intend to act solely for the benefit of their fellow-citizens, and that, whether mistaken or justified in their views, they are entitled to a respectful hearing and to generous consideration.

Among the causes of birth limitation have been mentioned such economic difficulties as arise from bad housing, the absence of a living wage, the desire to secure a good education and

a fair start in life for the children, fear on the part of the father that he may not be able to provide for more than two or three children, and on the part of the mother that the bearing and rearing of a natural family might be too much for her. Finally, in some cases, there is the absolutely selfish reason that the possession of a large family would necessarily interfere with the parents' comfort and enjoyment. With the exception of this last class of objection to a natural family, there is at any rate some plausible reason for the practice of limitation. Among the most cogent of these is the housing difficulty. It cannot be right that father, mother, adolescent boys and girls, young children and infants, should live and sleep, should eat and wash, in a one or two-roomed tenement. This difficulty, however, is now generally recognized, and the new Ministry of Health has placed the housing question in the forefront of the reforms that it hopes to accomplish. Up to the present time there has been the dilemma that either the family had to be adapted to the number of rooms for which

the father could afford to pay, or that everything else had to be sacrificed to the acquisition of the necessary house room. A different aspect of the same problem chiefly concerns the wife and mother. Her life is made almost impossibly difficult and hard when she has to bring up a family in one or two rooms without any supply of water except from a tap in the yard, which may be five or six storeys below, and when the water procured and carried up the many flights of steps has still to be boiled before it can be used for household or personal cleanliness.

All the influences of the people's environment seem to be against the natural impulse of parents to increase their family. Landlords, employers, neighbours, and self-interest, forbid the natural increase, and it is not surprising that under such circumstances methods of limitation should be practised if they are known, and that, failing this, too many poor women practise criminal abortion in the hope of lessening their burden. The sympathy felt with people confronted by so serious and diffi-

cult a problem cannot fail to be great when once their difficulties are understood, but unfortunately, from the time that the rise of industrialism caused an ever-increasing flow of people into our towns and cities, there has appeared to be very little effort to instruct employers and their representatives in the consequences that inevitably follow such urbanization. Probably in this, as in many other directions, the greatly increased knowledge and influence of women will assist in the solution of the problem. Of late years women have learnt more of the facts of life and of the difficulties of social and industrial problems than they ever knew before, and it is fair to hope that with an increase of knowledge and a deeper sense of responsibility, they will do much to help towards the provision of good housing and of adequate wages.

With regard to the limitation of the family among those who have better means than the wage-earning class, but who are far from being affluent, the difficulties connected with the natural increase of the family are less con-

cerned with absolute want of house room and with employment difficulties, but they are intimately connected with the education of the children and the maintenance of what they consider to be their proper social status. As a matter of fact, we ought all of us to have learnt during the war that many things we formerly thought essential are of no importance, and that we can all respect each other even although we keep fewer servants, wear less fashionable clothes, and keep a simpler table. The question of education is in process of solution. The new Education Bill will do much to secure not only primary and secondary education but a more or less comfortably graduated slope up to university status. The fears of middle-class parents that their children will not receive a good education may now be considered to be on a level with their fears that if they have a natural family they may fall below their proper social dignity, and will diminish as the hope of better things grow brighter.

The mere absolutely selfish reluctance to

have a family is totally unworthy of a people who understand so well how to bear the heavy burdens—financial, social, and family—that we have borne since 1914.

Reasons Against Limitations of Families

Limitation of families is wrong and dangerous because it does not control nor discipline sexual passion, but by removing the fear of consequences it does away with the chief controlling and steadying influence of sexual life.

Secondly, the limitation of the family is not really in the interest of over-burdened mothers. It may relieve them of too frequently recurring child-bearing, and from the burden of too large a household; but on the other hand, by removing the chief check on the husband's desires and demands, it destroys the wife's protection from his too great insistence and persistence.

Thirdly, the possibility of satiating desire without incurring the risk of procreation tends to the over-development of the sexual side of the characters of both man and woman. It is

as if the loathsome practices of Heliogabalus made perpetual eating and drinking possible. As Foerster says: "The situations which will necessarily arise from the man's sexuality being exclusively directed towards sensuous gratification, and being unaccustomed to control, will far surpass, in tragedy, sordidness, and poisonous consequences, anything which could possibly arise from the most unlimited child-bearing. The increase of man's subjection to passion and artificial sensuousness will be disastrous."

The picture of a society under a régime of uncontrolled licence, of unbridled passion, and absolute self-indulgence, is far from attractive. It would be in all respects worse than anything imagined by the Epicureans. The countries which practised such self-abuse would rapidly degenerate, and would show a lack of physical vigour and of moral greatness. If the intentional restriction of offspring was practised chiefly by the educated classes, the balance of power and of government would necessarily incline to those who were less well educated

but more prolific, and who, unfortunately, would not have behind them the steadying traditions of unselfishness, of self-control, and of capacity for command. The condition of such a State would be one of sheer materialism, the conduct of life depending entirely on bodily desires, not on true bodily welfare, while the capacity for mental and moral greatness would steadily diminish. Those who approve and inculcate the voluntary limitation of families, and who would divorce the sexual act from the intention of procreation, tell us that life is imperfect without the exercise of all the functions of the body; that health both of body and mind must suffer unless sexual desires receive ample gratification; and that the denial of gratification to sexual impulse is injurious to the physical and moral well-being of both men and women. They would have us believe that men who live continent lives become impotent, and that their nervous systems suffer from their self-restraint. That these statements are not generally correct is proved by the experience of thousands of men and

women, who for various reasons live celibate lives in absolute chastity, and who maintain physical vigour and nervous integrity. This is not only true of clergy and the religious orders, but also of many men and women who for various reasons connected with work or with family circumstances have neither married nor have sought physical indulgence. Doctors are practically unanimous in the opinion that young men and young women, even during the years when passion is strongest and self-control most difficult, can safely practise continence; that it does not diminish their subsequent fertility, nor does it injure their health. If these young people can be continent without suffering injury, still more can those who are older and whose passions are less eager. In the case of the married couple, their mutual love and the tender intimacy of abstinence may be more difficult on account of their lives, but even in such cases abstinence can be practised without injury, although it may be that it entails more regret and more difficulty. There can be few cases in which

absolute abstinence is necessary for married couples apart from those who, owing to unhealthiness of mind or body, ought not to have entered into the contract of marriage.

During hundreds of years chivalry and fine feeling have tended to spiritualize man's relation to woman. The finer and the more manly the man, the greater has been the delicacy and consideration which marked his conduct to his wife, and to all women; and one of the saddest implications of the present proposal to promote a purely animal relation between man and woman is the fact that it tends to lower the man to the level of the brutes. Of course this is not the object of those who advocate the voluntary limitation of the family, but it is the practical outcome of such a procedure.

A consideration of the relations between the sexes in the lower orders of creation shows that at any rate in the higher order of mammals, intercourse between the male and female occurs only at certain intervals, and that it is normally followed by pregnancy. It is rare for the female to be willing to receive the ad-

vances of the male except at regular intervals, special to each variety of animal. Probably the much more frequent desire of human beings is partly due to the fact that they are brought up to expect and to claim unlimited sexual intercourse as a right, partly to the unfortunate dual standard of legal morality, and partly to the inferior legal and social position of woman, which has led to the opinion that whereas any lapse from morality on her part must bring with it social ostracism and censure, it has very generally been considered neither wrong nor discreditable for men to consort with women who were not their wives, even after marriage.

We are told that it is useless to bring religion and ecclesiastical law into what ought to be considered a purely natural question. But after all, the great majority of the human race do believe in the existence of a God, and the existence of the Churches is a concrete fact acknowledged by all States whether civilized or uncivilized.

The attitude of the Roman Catholic Church

on the questions we are considering is that there ought to be no restriction of the family; that unmarried individuals should live in abstinence and purity; and that married couples should come together only with the intention of procreation. The discipline of the Roman Catholic Church is very strenuous in theory, the penalty for breaking her rule going to the length of withholding the Sacrament from offenders against her law. It is impossible to pretend that all Roman Catholics obey the law of their Church in this matter, but that something is achieved by her directions is proved by the fact that the average number of children in Roman Catholic families is 6.6 as against an average of 3.13 in the general community.

The attitude of the Church of England in this matter is embodied in the resolution of the Lambeth Conference of Bishops. This resolution pronounces that "deliberate tampering with nascent life is repugnant to Christian morality." It advocates a "natural and temperate use of a state appointed by God."

The Bishops recognize that under certain conditions of health and of finance the natural increase of the family may be undesirable, and that some married couples may have to live in abstinence. Further, they are of opinion that "Christian chastity in married people means the power to bear all this without injury to the wife or sinful indulgence with others. Such chastity will by some be found exceedingly hard, but it is entirely consistent with health." They believe that in some cases restriction of intercourse to the mid-menstrual period may suffice, and they hold that recourse to drugs and to appliances is dangerous, demoralizing and sinful. In their opinion restriction "errs against purity by isolating the physical side of sexual union, and making it an object in itself apart from its proper purposes."

With regard to the Jewish Church, we learnt in 1916 from the Chief Rabbi that "among the Jews the use of preventives is strongly condemned as unclean and demoralizing. The only exceptions that could ever be allowed are where there is danger to life; this consideration

overrides almost all moral rules. Every male Jew is bidden to marry and have children. A widower with less than two children must marry again. Childlessness is regarded as a misfortune or a disgrace. Marriages of persons physically or mentally unfit for healthy parenthood are severely forbidden. The welfare of the next generation is the object chiefly kept in view."

The attitude of the Free Churches was less definite, but the great majority of Nonconformists as represented by several leaders of the Free Churches have recently stated that "if confronted with the problem they would unhesitatingly condemn the use of all mechanical or chemical means of prevention and would strongly insist on the voluntary moral control of all natural functions."

This is a very remarkable consensus of opinion, and it is only of late years that the duty of maintaining the natural function and of accepting the consequences of marriage has been doubted. There have always been people who failed to live up to their convictions, and

of course immorality and an improper use of the married state have always existed, but it has been reserved for our generation not only to insist on doing wrong but to justify the wrong-doing, to seek to spread the knowledge and means of wrong-doing; not only to justify it but to present it to the world as a good and a right procedure, as something to be aimed at by those who desire their own welfare and the welfare of their children.

Among those whose opinions are on novel lines and held seriously, even religiously, is Mrs. Marie Stopes, D.Sc. As revealed by her writings, she is frankly and emphatically in favour of the limitation of families. She discusses the question in her books and especially in Chapter IX of *Married Love*. She is of the opinion that although some men may find abstinence easy, the majority do not—that to nearly all men complete abstinence is irksome and difficult, while to some men such restraint amounts to physical and mental torture.

In *Married Love* Dr. Stopes defines her

position and argues that much harm is done to married couples partly by painful efforts at abstinence, partly by the interruption of their relations, and partly by the means taken to prevent the natural consequences of matrimony. In a second book, *Wise Parenthood*, Dr. Stopes reviews the contraceptive methods usually practised, and finds that some of them are ineffectual and others are, in her opinion, harmful to husband or wife or to both of them. She then proceeds to describe a method which she considers safe, effectual, and easy of application.

In both these books, and also in a pamphlet entitled "A Letter to Working Mothers," Dr. Stopes maintains the view that artificial restriction of conception, would result in the birth of finer, healthier, and more beautiful children. According to Dr. Stopes, this result would be secured by the intervals between child-bearing being longer. The mother's health in general, and her capacity for child-bearing in particular would thus be maintained at a higher level; and the children who are generated when both

father and mother desire an increase in the family are bound to be better specimens than those produced by careless or unwilling parents. Dr. Stopes emphasizes very strongly the right of every woman to dispose of her own body, and is therefore of opinion that she should be free to receive her husband's advances only when she is fully desirous of doing so. In passing, one may well admit the justice of the view that a woman should not be coerced into motherhood, nor indeed into sexual union, but surely the true freedom and safety of woman should be secured by the chivalry and reverent love of her husband; and it is to be remembered that contraceptive methods, far from aiming at giving the mother full control over her own body, aim only at preventing conception, and, by relieving the husband of all responsibility and fear of consequences, the use of them inevitably tends to make his demands greater.

It is also, as has been already pointed out, extremely unfair to the woman, for while defending her against too frequent conception,

it tends to make her still more liable to undue sexual demands.

The injury that a general reception of contraceptive teaching would inflict upon the unmarried is even greater. A knowledge of the methods of preventing conception cannot but tend to break down the safeguards that are so badly needed by many unmarried men and women. The mere discussion of contraceptive methods is lowering to the moral sense and to the innate reserve and purity of decently brought-up young people. That such a subject should be made the matter of public discussion is a deep injury to the conscience of the nation, and if the methods detailed by Dr. Stopes should become generalized, there is reason to fear that many thousands of young people who might otherwise have retained their virtue, and who might have looked forward to honourable matrimony, will be injured both in body and soul. It is also probable that a very considerable proportion of unmarried people who indulge in promiscuous relations will be in danger of contracting

venereal diseases. In short, it would appear that, should the nation at large listen to such teaching and adopt it, those who have put it forward must be numbered amongst the greatest enemies that our race has known.

Among the serious and thoughtful advocates of birth restriction must be numbered Dr. Killick Millard, Medical Officer of Health of Leicester, who published his views in the *Nineteenth Century* for November, 1918. As the result of inquiries that he made among his professional brethren, he found that a considerable majority of them did not consider that the use of contraceptive methods led to estrangement between husbands and wives, or to any physical injury.

Dr. Millard was anxious, as he said in his article, that this very important subject should be further investigated. In his view the desideratum was a non-injurious, reliable, and practicable method for preventing conception, and he thought that if it could be established that scientific methods properly applied were not injurious to either husband or wife, there

would be good reason for asking the Bishops to reconsider their attitude. He pleaded that from the eugenic point of view the present position was most unsatisfactory, because birth-control is practised by the A1 classes and is neglected by the C3 classes; and further that if birth-control were selective, so as to operate in cases where an hereditary taint existed, it would be a valuable eugenic instrument.

It has also been urged that of necessity the *rate* of the natural increase of the population must decline as its *volume* increases, and that this reduction must be brought about by voluntary reduction of the birth-rate or by an increase in the rate of infantile mortality. Now it is clear that ordinary humanity and national righteousness alike forbid any careless increase in the mortality rate, and a little reflection shows that voluntary restriction of the birth-rate is, to say the least, not necessary. There are wide spaces of the earth awaiting a tide of population to exploit their riches, and even our own national estate is badly under-

manned. We are told that some time in the future the total surface of the earth will not carry sufficient harvests to feed its population, but it is evident that that time is not near at hand, and also that the resources of science have yet to be devoted to the extraction of the many undeveloped gifts of nature. Intensive cultivation, chemical and electrical, is in its infancy, and any talk of insufficient production is premature. At present we are suffering from insufficient population.

Put very briefly, the advocates of birth-control appear to desire it because in their opinion men and women are not strong enough nor wise enough to practise self-control. They are honestly convinced that marriage is not for the procreation of children, for mutual love and support, nor for avoidance of sin, but that it is to afford free and legitimate outlet for sexual desires—that under the ægis and sanction of matrimony there shall be afforded lifelong opportunities for unlimited sexual gratification. To sustain this argument certain subsidiary reasons are adduced—such as the

difficulty of providing housing accommodation, the impossibility of the man providing for more than two or three children, the injury inflicted on wives by frequently repeated child-bearing, the difficulty of rearing a large family, and the fear that the world itself will be unable to sustain the children that may be begotten.

A consideration of these aguments leads to the conclusion that the majority of those who advance them are thinking, not of the right and wrong involved by limitation of families, nor of the spiritual, moral, and nervous injury that might be inflicted by so doing, but that they are chiefly considering the question from the physical, the hedonistic, and material points of view. The arguments in favour of contraceptive methods appear to be chiefly that a natural family must in many cases prove a heavy financial burden on both parents, and also make an excessive demand on the strength and energy of the mother. Secondly that abstinence even for a time, or limited to certain periods of the month, is impracticable

for most people, and that it is making too great a demand on the self-control, the husbandly affection, and the chivalry of men.

With regard to the economic aspect of the question, one would like to suggest that housing, wages, and education, together with all other necessities of life, ought to be adapted to the population, and not the population to the economic considerations. If ever there were a time in the history of the world when the working-class population had the right and the power to insist upon a great amelioration of their lot, that time is the present. The Government, the capitalists, and the philanthropists are all at one in agreeing with the working classes that we can never return to the old condition of things. Everyone feels that better housing, better wages, better education, shorter hours of work, and a larger share of amenities and amusements are the right of those who have done so much to save the Empire. The problem is an extraordinarily difficult one and needs time, knowledge, and goodwill for its solution; but an answer can

assuredly be found, and the right answer is not the restriction of the population, but a more equitable division of wealth, and of all those things that wealth can buy. We must also remember that by removng the natural result of sexual intercourse, those who advocate the use of contraceptives are removing one of the most potent safeguards which protect the welfare of married women, and that while they are making her more than ever subject to her husband's desires, they are to a great extent robbing her of her power to be mistress of herself. Further, they do not seem to realize the probable result on unmarried people of diffusing the knowledge of the use of contraceptives. Those unmarried people who are not protected by a high ideal of morality are at the present time frequently deterred from wrong-doing by their knowledge of the probable consequences. It has always been held that women are the superiors of men in the matter of sexual morality; we have no truth of this belief. In regard to other shortcomings, such as untruthfulness, dis-

honesty, and selfishness, the two sexes appear to be fairly on an equality, and there is some reason to think that the woman's higher standard of sexual morality is very largely the product of her age-long fear of the consequences of immorality. It is all too probable that if the fear of bearing illegitimate children were removed women as a whole might gradually sink to the level of men in the matter of sexual purity. Up to the present time the dual standard has prevailed, and sexual dereliction on the part of the man has always been considered to be so natural and so common as to need little excuse or apology. On the other hand, the woman who has had an illegitimate child has been considered to be so degraded that even the attempt to rescue her has been a forbidden subject in polite society. Parents have not hesitated to give their daughters in marriage to men who were notorious evil livers, but men have very rightly objected to marrying a girl who was known to have made so fatal a mistake. It is quite easy to understand how this state of things came about.

The maid, or wife, who had an illegitimate child introduced bastardy and visible shame into her family, and although in these latter days we are lovingly and justly endeavouring to save the unmarried mother from the worst consequences of her sin, and while we are endeavouring to secure nurture and education for the much sinned against offspring of irregular unions, we should surely also endeavour to level up the moral standard of the men, and to teach society that there can be but one standard for both sexes, and that both man and woman should bring to their espousals healthy bodies and pure minds.

Very great efforts are being made to effect this object. It is recognized that a marriage between a healthy and a diseased individual must not be tolerated. It looks as if the time was near when bride and bridegroom will be required to exchange certificates of health, and this will probably hasten the day when prospective brides and their parents will be more careful than they are at present that both parties to the union shall bear an unblemished

reputation. Girls and women are no longer so ignorant and so helpless as they were, and the teaching, not only of Christianity but of eugenics, patriotism, and enlightened self-interest, will lead to the demand from both bridegroom and bride that the prospective partner shall be sound and untainted in mind and body.

All these legitimate hopes and aspirations will receive a very serious setback if the new views on the use of contraceptives become generalized. The philosophy involved in the limitation of the birth-rate is purely materialistic; its real aim and object is to secure gratification without incurring responsibility: it tends to do away with the protecting and chivalrous love that has hitherto distinguished the more thoughtful and considerate of husbands, it tends to reduce all to the purely animal level, and to rob the union of man and wife of its spiritual significance.

In the present position of medical knowledge it is not possible for anyone to say that unrestricted sexual intercourse is necessary for

the health of any individual. God in His mercy has attached feelings of pleasure and gratification to those acts whereby individual and racial life are secured. All healthy people enjoy the taking of the food that is essential to their well-being and to the continuance of their usefulness; and the person who does not enjoy food and has not a healthy appetite is abnormal and should consult a doctor. In the same way, in the great majority of instances, the act which is necessary for the continued life of the race is pleasurable, and is as right and as natural as is a good appetite for food. Society unites in condemning excessive delight in the pleasures of the table; those who are over-indulgent to themselves in the matter of food or drink are considered to be outside the pale of good society, while the law of the land deals with those who steal or pilfer in order to satisfy the desires of their stomachs. Appetite for food is the deepest instinct of human nature, and next to it in power and in depth is the instinctive desire between the sexes. But here again gratification of instinct must be

ruled by reason and by opportunity. The excessive use of what is lawful is degrading and a wrong to the offender's own nature, and, as in the case of dishonestly acquired food, the sexual gratification that is secured at the cost of another is a matter that brings the offender under the power of the criminal law. No harm, but great good, is done by the careful regulation of human appetites, and the doctors of today agree in the fact that self-control and continence injure no one.

Evidence on this point is clear and unconflicting. The medical witnesses called before the Birth-Rate Commissions were unanimous in their statements that continence before marriage, and chastity and moderation after marriage, are not only consistent with perfect health but are hygienic and desirable.

It is also necessary to consider whether the use of contraceptives has any injurious effect on those who use them, and whether from this point of view there is not some reply to those who advocate their use.

A long professional life devoted to the ser-

vice of women leads me to the conclusion that contraceptive practices are injurious in their effects on many who use them. These injuries occur almost entirely through their influence on the nervous system. Women approaching, or passing through, the menopause often suffer from a noticeable amount of nervous worries. They are irritable, depressed, and difficult; in many instances they sleep badly and suffer from headache. Women at this critical period frequently complain of vague nervous sensations—such as numbness, pins and needles, "neuritis" (so called), and other unnatural sensations which lead them to fear the onset of paralysis.

All these symptoms are not essential to the menopause—they are exaggerations or distortions of what is natural to the change of life. The young girl should go through her period of evolution comfortably and healthily. So the middle-aged woman should go through her involution without undue creaking and jarring.

The young girl who has been over-indulged, and whose nervous system is in a condition of

irritable weakness, will suffer unduly during the rapid evolution of puberty. Just so the elderly woman whose nerves have been injured by excess in alcohol, in sexuality, or in other ways, will fare hardly at the menopause.

The injury inflicted by any unnatural habit is deep and lasting—more formidable than any local lesion. From the nature of the case, no absolute demonstration can be made, but the cumulative evidence derived from forty years' experience cannot be set aside. After all, such injury is paralleled by that inflicted on the appetite by disregard of the accustomed hours of meals. The individual who does not eat at the usual time will find that when he lays aside his work or pleasure and sits down to table he has lost not only desire, but also the power of digestion. Other examples of this law of nature can be furnished. Irregularity in responding to the calls of nature leads to perversion of the nervous impulses, and so for instance to sleeplessness and to constipation. If people wish to have the greatest good; if they wish to reap the best harvest of which

their natures are capable, they must be the willing, intelligent, and obedient servants of nature. There is nothing natural about the use of contraceptives: they are all intentional methods of contravening nature. Probably the correct rhythm of reproduction in the human being is an interval of about two years. If we had not become over-sexed by undue indulgence, there would have been little conception except immediately after a period, and none during lactation. The remedy lies in the direction of athleticism and self-control.

Among the means to further the cause of temperance and chastity among men and women, we must give the first place to the sanctification and disciplining of human nature. Each individual is a trinity in unity, and the things that benefit or that harm any one part tend to benefit or to harm the whole. Chastity and self-control of the body connotes purity and refinement of mind and the elevation and sanctification of the soul. It is not for nothing that we find the words which express health and holiness belonging to the same root, nor is

it a subject for astonishment that those who are insane of mind are frequently degraded in soul and imperfect or diseased in body. Those who know anything of national statistics are aware that the insane, the criminal, and the sexual pervert are frequently defective both in mind and body. Conversely, it is a matter of general experience that the environment and education which tend to promote healthiness and soundness of mind also promote physical well-being. Therefore, if men and women wish to be the "masters of their fate" and "captains of their souls," they must endeavour to secure their physical well-being by moderation in all things. Among the conquests to be won over the lower nature is the disciplining of the desires; and among the natural desires, the two that give the most trouble, and also which react most upon each other, are the love of strong drink and sexual desire.

The evidence given before the Royal Commission on Venereal Diseases showed that the act to which infection with these diseases is

generally due was committed in some 90 per cent. of the cases while the individual was under the influence of alcohol. Not that he or she was necessarily drunk, but that alcohol enough had been taken to silence conscience and to cloud the judgment. In like manner, much of the excessive sexuality and gross materialism that conspire to cause over-frequent demands upon a partner's generosity have their origin in the same deterioration of moral control. There is reason to hope that our country will not again descend to the level of excessive alcoholism which disgraced it before the war. During the war the Central Control Board (Liquor Traffic), under the guidance of Lord D'Abernon and his colleagues, secured a very marked improvement in the incidence of alcoholism. Convictions for drunkenness both among men and women diminished wonderfully; so, too, did certain other consequences of alcoholism, such as deaths from delirium tremens, deaths from cirrhosis of the liver, and cases of the suffocation of infants. These benefits were secured

partly by closing a considerable number of superfluous public-houses, but also by the measures which prevented drinking in the early morning and late at night, and which practically limited the hours of sale to the times of the two principal meals. Thus was prevented the terrible consequences of continuous "soaking," and also of the early morning dram on an empty stomach. If the legislation which is now proposed is capable of continuing this national benefit, we may look for a steady increase, not only in efficiency and bodily health, but also *pari passu* of economic ease and of self-control. One of the consequences of this increased sobriety would be a diminution in the birth of illegitimate children, and also a more rational and considerate exercise of the rights of married men and women. Up to the outbreak of war, it is to be feared that the lives of millions of our fellow-citizens consisted in long hours of badly paid work, of insufficient and badly cooked food, and of the deep sleep of utter exhaustion. In such lives there was scarcely any hope of de-

veloping self-control, and in too many instances, the unfortunate couple came perilously near to the absence of rational pleasures and of being driven into so degraded a position that their appetites and desires were scarcely distinguishable from those of the lower orders of creation.

All people who have studied adolescents and young adults agree that the years of maximum temptation to sexual excess are those when the body is strongest, the passions are most vivid, and the power of self-control is weakest. Probably few men and few women become alcoholics or begin a career of unbridled sexuality after the age of thirty. Something, then, ought to be done to help the young members of the community to withstand their great temptations. Much has been done and still more remains to do. As was pointed out above, the problem of temperance so far as alcohol is concerned was never before presented in so hopeful a manner as it is now, and it seems likely that this temptation at any rate will be lessened and made more bearable in the im-

mediate future. There is also an awakened conscience and a clearer insight in those who control the destinies of the nation, and in those who love their fellow-men. There is definite hope that the important and difficult question of the better housing of the people is already undergoing solution, that fair wages and reasonable hours of work will be not only claimed, but conceded and secured, and that in consequence the young men of the working classes, the young husbands and potential fathers of the immediate future, will be helped to attain to a higher level of manhood and of chastity by a diversion of their desires to other objects than drink and women. When our lads play cricket and football heartily themselves, instead of merely looking on, a great step towards the attainment of public morality will have been made. Athletic exercises of all sorts, the provision of public swimming-baths and washhouses, the provision of drill halls, institutes for Swedish exercises, and (perhaps as important as any of these means) tea gardens, good and elevating cinemas and dramatic

representations, will tend to the purification of the mind and to the satisfactory development of the body, the lack of which development constantly leads to moral disaster.

If these and other similar methods of education and amusement were provided, sexuality would naturally take its proper place, and its proper place only, in the life of each individual. The instinct is too deeply rooted for there to be any fear that it would diminish unduly, but improved social status, improved bodily health, and the competition of other forms of pleasure and enjoyment would reduce it to its proper influence, and its proper influence only.

A woman living under physiological conditions would probably have a child about once in two years—nine months' lactation, six months' holiday, and nine months' pregnancy would prevent a woman from the very undue strain of bearing a child once a year. If married life began about the age of twenty, the young woman's fertility would be at its height, and it would generally have begun to diminish

by the time she had borne five or six children. A family of this size would be none too big for the necessities of the Empire. Two children might be taken as representing the father and mother in the home population, while three or four would not be too large a contribution towards the adequate population of the Britains Overseas. It may be true that England is already sufficiently populated, but the same cannot be said of the outlying parts of the Empire, some of the fairest parts of which are so sparsely populated that they offer almost overwhelming temptations to their neighbours.

We must also remember that for many years to come, every potential husband and father, every living and healthy child, is a valuable national asset. We have lost most of the young men who ought to have been the fathers of the next ten or fifteen years. Mercifully, the reproductive period of men is not so limited as is that of women; if it were, the position of our population would be hopeless. But even as it is, every effort should be made to assist

the working population, and perhaps even more those members of the community who are well educated and have a real stake in the country, but whose small fixed incomes make their real economic position worse than is that of the labouring classes.

Graduated remissions of income-tax, the endowment of mothers and of children up to the age of fourteen, the provision of a real living wage, and the steady encouragement of all classes to work hard and to increase our exports, are amongst the means that may be taken to solve the problem of the birth-rate.

While doing all in our power to render the lives of our people holy, happy, and healthy; while endeavouring to afford a better answer to the question than is given by those who propose the use of contraceptives and the limitation of families, we must not forget the twin problem of infant mortality. It is useless for women to undergo the inconveniences and trials of pregnancy and the pains and perils of child-birth if the infant population is to die at an average rate of one in eight during the

first year of life. From the experience of some parts of the British Isles, and from the experience of New Zealand where the rate of infant mortality scarcely exceeds thirty in the thousand, it is evident that the present average of infant mortality is unnecessarily high, and that if all were done that could and should be done to secure that children are born healthy, and that they are properly fed, warmed, and clothed during infancy, a greater part of our harvest of babies would be saved.

II

By Rev. F. B. Meyer, D.D.

To determine the relations of Man and Woman in the most intimate privacies of life is by no means easy—the more so as the ideal and the conventional are more sharply divided here than on almost every other subject, and because no one has the right to entail on his fellows burdens which neither he nor they are able to bear.

The relation of the sexes is the most important consideration under the sun, affecting as it does, not homes and families alone, but nations, races, and civilization. It is integral to human well-being. Probably it is related to mysterious unities and affinities, of which we are but dimly conscious, but which govern earthly attractions and repulsions, as magnetic disturbances the ebb and flow of ocean-tides.

The interactions of sex begin in the abandon of the nursery. Before the pure veiled eyes of brothers and sisters the first letters in the great alphabet of life are taught. Hence on the one hand the immense loss and deprivation of the only child, and on the other the immense gain of the large family, especially where the elder sister mothers the tiny brother, and Mother Nature in her inimitable manner unveils mysteries before prurient curiosity has awakened to set itself on its secret quest. It is a happy lot when a large family, of different ages, grow naturally and simply under the careful and wise tendance of parental nurture.

In after years the relation of brother and sister has often tended to become idyllic, and many a man has found in his sister the complement of his own moral and intellectual existence, and has felt no need of other womanhood than her pure and gifted nature supplied.

It is not to our present purpose here to dwell on the elective affinity that should draw together this man and this woman into the marriage union, which in immortal words is

compared to the setting of perfect music to noble words. Suffice it only to say that what begins merely in the physical is like enough to end in disappointment and rupture, and that the true relationship is the mating of spirit with spirit, of mind with mind, of heart with heart, in such idealizing each of other that the body of either is reverenced as a holy thing, not to be desecrated, as Pompey desecrated the white marble of the Temple when he sacrificed a sow within its precincts. Where there is true love, which is the coalescing of souls, an idealizing halo, which is akin to worship, is flung around the object of affection, and arrests the intrusion of animal passion or lust on the threshold of the soul.

Since this is not a manual on the stages which precede and lead up to the marital act, it is beyond our province to urge that on either side in the marriage-contract there should be assured good health, that each should be acquainted with the nature of the marriage-act, and that some interval should be allowed to elapse between the exhausting experiences of

the preparations and festivities and the consummation of the marriage itself. Attention to these three particulars will have not a little effect in the many questions which will arise from the new and vital relationship of the newly married pair.

We proceed, therefore, to enunciate—with all reverence and purity of intention—the following propositions:—

1. That the wife must be a consenting party. She is not a slave or a chattel. Her body is her own, and she has the right to refuse as well as to grant. In an authoritative Jewish memorandum on this subject, the following statement is made: "Though conjugal rights are a husband's duty (Exodus xxi. 10), the wife's consent is at all times an indispensable prerequisite. The exercise of such rights is discountenanced in a state of alcoholism, and in times of individual or social psychic depression. But unreasonable and prolonged denial on the part of either husband or wife entitles the other to divorce." A similar memorandum from an influential member of the Roman

Catholic Church discusses the several occasions in which a wife is freed from the obligations to render the rights of marriage. For instance, the use of marriage is forfeited by either party committing adultery. In this case the innocent party may refuse intercourse, but may ultimately pardon and condone the offence. "Under the above heads," the memorandum continues, "may be included drunkenness, especially on the part of the husband, when demanding the rights of marriage, also the risk of contracting contagious and infectious disease, and when very grave injury is likely, in the opinion of medical advisers, to result from child-birth." In a memorandum prepared by a Committee of Bishops of the Anglican Church, the same rights are implied, though not so explicitly expressed, in the following: "We think it sufficient to say that women should do all in their power to make and keep marriage wholesome, natural, and chaste, and to reinforce, by their own ever-stronger and finer instinct, the resistance to the misuse of marriage; nor

should they shrink from the heavy burdens which marriage may entail upon them." A distinguished Free Churchman states the matter thus: "The performance of the marital act at any time should be at the will of the woman as well as of the man."

It is probable that man's failure to observe the rights of woman in this respect has, to a large extent, led to that revolt against marriage which has characterized the intellectual women of our age. They argue that it is unreasonable to secure the unmarried against rape, but to expose a woman, apart from her consent, to the licence of her husband's passion. The gravity and wisdom of Jeremy Taylor's dictum cannot be challenged when he says: "In their permissions and licence the husband and wife must be sure to observe the order of nature and the ends of God. He is an ill husband that uses his wife as a man treats an harlot, having no other end but pleasure." At the same time, we cannot go to the length of a vigorous defender of woman's rights, when she says: "If a husband cannot properly

control his amorous propensities, he and his wife had better by all means occupy separate beds and different apartments, with a lock on the communicating door, the key in the wife's possession." In practice such action would go far to destroy the mutual confidence and love which are the foundation of a happy married life. Directly man and wife have to turn the key on one another, the married-altar has crumbled into decay and they are bound by the iron mandates of the law instead of the tender ties of a uniting affection. Respect for each other's rights is the foundation of married love. Where this is present, the husband will not demand what the wife cannot concede, and the wife will go to the furthest lengths of concession for the sake of the man whom she respects and loves.

Throughout the entire animal creation, the condition of the female always determines the approaches of her mate. Though he is the more aggressive, yet he is debarred from forcing himself on the female without her acquiescence. It is only when she is in a condition to

conceive that she will welcome the advances of her partner. And though the analogy may not be pressed to its full extent, because with the human there is the substitution of intelligence and moral choice for the working of blind instinct, yet this fact may at least be adduced to support our contention, that the wife is mistress of her own body, and that a husband will reverence his wife sufficiently to refrain from forcing upon her exactions which offend her modesty, and lessen their mutual confidence and respect.

2. Though the procreation of children is the normal result of the marriage-act, it must not be considered to be its sole and exclusive purpose. Nature is careful to preserve the continuity of life. The myriads of seeds that are never fructified in vegetable and animal life, bear witness to the care with which the decline or extinction of any species is resisted in the heaving matrix of existence. And in the higher races of mammals, and especially of man, extraordinary precautions are exerted to propagate the race. "Be fruitful and multiply

and replenish the earth" is an injunction that Nature never for a moment forgets. And as a chief means to the attainment of this result, the sense of keen pleasure is associated with the act of generation. This is the invariable inducement held out to the production and maintenance of life. The attractiveness of succulent fruit which appeals to the appetite; the luxury of sleep stealing over the wearied limbs; the ecstasy of the touch of love; the pleasure of exercise—these are samples of the method by which we are cajoled into doing what we must do, to maintain vitality and health. The witchery of sensation is constantly alluring us to actions which we might forget through inattention or evade through lethargy. The keen gratification of the sex appetite is thus a perpetual incentive to the fecundity of the race.

In the memorandums already alluded to procreation is always placed as the first purpose.

The Roman Catholic programme is:

1. The procreation and bringing up of children.

2. Mutual assistance in life.
3. The restraint of concupiscence.

The Anglican Church is:

1. The procreation of children.
2. The avoidance of sin.
3. The mutual help and comfort which husband and wife may render the one to the other.

The Jewish is:

1. Procreation.
2. Life-companionship.
3. The education of children.

This preponderance of affirmation that the first aim and purpose of marriage is the procreation of children is so overwhelming that one's individual expression of opinion seems impertinent, and yet one's opinion is wholly recusant. The desire for children has, without doubt, its large place, especially in a woman's heart as she contemplates matrimony; but in an immense proportion of cases the marriage union is the consummation in the physical sphere of

an affinity, a knitting together, of souls, which has been realized for months or years before. It is the outward and visible sign, symbol, or sacrament of an inward psychical attraction. Conception may ensue, a new life may be generated, ultimately a child may be born, but all this is incidental to the elective affinity of two souls.

It may be argued that this is the ideal of true wedlock. But even so, it is only as we study the marriage-relation in its transcendental form that we are able to discover its fundamental law. And to the argument that the principal incentive towards marriage arises from the craving of passion, at least in the case of men, and that this, rather than an elective affinity, is the inciting purpose, it may be replied that this at least supports the present contention that the procreation of children cannot be considered as the sole and exclusive purpose of the marriage-relationship.

In a remarkable passage, the words of the Apostle confirm this contention. "Let the husband render unto the wife due benevolence:

and likewise also the wife unto the husband." There can be but one interpretation of these words. Surely their obvious significance is the true one, that the marriage-act may be intermitted for a special purpose and for a given time, but it shall be resumed, not specially for the purposes of procreation, but for the expression of mutual love, and for the joint enabling of each other more successfully to combat the temptations to impurity, which were specially rife in the semi-oriental atmosphere of Corinth, as in modern cities.

Obviously it must be inferred that the position which we are maintaining warrants an undue licence in the marriage-relationship. So far from that, the mutual love of husband and wife will be on the outlook for any sign that the undue excitement of the sex-organs is inducing fretfulness, exhaustion, or nervous depression in either. If this were induced, it would alienate rather than induce conjugal love, which is highly sensitive to whatever would disturb the mental or physical tone.

What may seem moderation to the husband

may be most immoderate and hurtful to the wife, or the reverse may be the case. The law for each is to consider the other, and to temper indulgence so as to attain the best possible results of health and happiness for both. We are all familiar with the necessity of governing our senses in other directions, and we should hold the appetite of sex under the same control as that of hunger or thirst or sleep. Some physicians are inclined to limit the relation to once a month. It is generally admitted by those who have studied the subject from a physiological standpoint that no man of average physical, nervous, and intellectual vigour can exceed the limits of once a week without a danger of imperilling personal well-being and conjugal felicity.

Before we pass from this particular, it may be well to notice that the fact that there is one common act, which is sacred between husband and wife, and in which no man other than the husband, and no woman other than the wife, has any right to participate, is a perpetual reminder of the unique relationship between

them. A man may have many acquaintances among women, but none may dare to enter the sacred enclosure in which the one woman stands, whom he calls *Wife*. A woman may be the friend of many men, who are attracted by her intellect and accomplishments, but when they have all departed, there is the one man of all, who has the right of an intimacy which is forbidden to all else. And this is the characteristic function of the act of marriage, quite apart from the raising of a family of boys and girls.

Therefore we cannot hold the view of those who insist that the only thing which ultimately justifies the intercourse between man and woman is the purpose and desire to have children, and that the whole conception of the marriage-relationship is lowered, unless it is intended to promote the production of children. We honour the personal character and high ideals of such persons, but their view seems inconsistent with the line of argument advanced above, and presents to all but a few an impossible ideal, as it would limit the

marriage-act to five or six times in the entire course of married life.

3. Whatever is unnatural in the marriage-act is to be condemned on moral and physical grounds. That these methods are widely practised may be confidently inferred from the continued fall of the birth-rate. In 1881 for England and Wales it was 33.9 per thousand; in 1911 it had dropped to 24.4. "Whilst the number of marriages is steadily increasing, the average fruitfulness of marriages is greatly decreasing, and that this decrease is very largely due to the deliberate restriction of the procreation of children in married life is attested by its concurrence with the sale of drugs and instruments for this purpose." (Quoted from a memorandum drawn up by a Committee of Bishops of the Anglican Church.)

These practices are strongly condemned by some members of the Medical Faculty.

Nature herself condemns these practices; and the people who have practised them are compelled to admit, with the findings of the Bishops' Committee, that such married life

as has been subjected to these methods has always proved to be desolate and disappointing. To those who obey her, Nature distributes her rarest gifts with prodigal generosity, but she chastises with a whip of scorpions all who ruthlessly offend against her conventions. The falling of the womb, nervous depression, loss of memory, even the asylum, are among her penalties. But the sacrifice of modesty, of self-respect, of mutual respect, to say nothing of the clear upward gaze of the pure soul, are still a heavier infliction to all right-minded people.

It is here that the question of the growth of the family demands attention. The health and strength of the wife may be unequal to the bearing of more children, or of any. It may be impossible to obtain the necessary house-accommodation for the decent upbringing of a large number of children. The question of the means of education may also arise. These and similar circumstances may make it necessary for parents to consider very seriously if they may not legitimately restrict the growth of the family.

It is highly probable, however, that this question would arise less frequently if the attention of young married people was drawn to the prescriptions of that ancient sanitary code laid down by Moses for the observance of the Hebrew race. In Leviticus xv., 19, it is enacted that the woman should be entirely separated during her periodic sickness, and when this had passed, she must number to herself seven additional days, after which, on the eighth day, she appeared before the priest with her offerings, and was declared to be clean. The evident object of this provision was that the number of children should be limited, and the very best type of human life transmitted. It is also a rare phenomenon for a woman to become pregnant during lactation. In one quarter it has been suggested that two years is the proper interval between the births of children—consisting of nine months of gestation, nine months of lactation, and six to nine months' rest; but even if the latter of these were dropped, the suckling of the babe would not only greatly tend to the child's health and

the influence of the mother's nature over that of her offspring, but would secure for the mother a further opportunity of recovering her strength.

But if still the necessity of restricting a woman from further child-bearing were clamant, there is one natural method which may be adopted, and which is held to be permissible by the leaders of religious thought—namely, the limitation of intercourse to the middle period between the close and the commencement of the periodic sickness. This is technically known as the inter-menstrual period. "There is no doubt," says Dr. Schofield before the Commission previously referred to, "that the majority of women conceive either just before or just after the monthly period." The memorandum prepared by the Committee of Bishops contains this extremely important statement: "It seems to most of us only a legitimate application of Christian self-restraint, that in certain cases (which only the parties' own judgment and conscience can settle) intercourse should be restricted by

consent to certain times at which it is not likely to lead to conception. This is only under certain conditions; it is approved by good medical authority; it means self-denial and not self-indulgence. And we believe it to be quite legitimate, or at least not to be condemned."

The Roman Catholic memorandum agrees so far as to say: "Where all other deterrents fail, married couples may be allowed to limit intercourse to the inter-menstrual period, sometimes called *Tempus ageneseas*. But this limited use of marriage is not to be put forward as a perfectly safe means of avoiding procreation."

4. Cohabitation during pregnancy is permissible, though considered by many to be inadvisable; but the periods when the monthly sickness would fall due should in any case be avoided. In the evidence before the Commission, Dr. Fremantle said: "There is no necessity whatever to abstain during gestation and lactation—no reason whatever."

It must be confessed, however, that there

is considerable difference of opinion on the effect of the marital act, during pregnancy, on the mother, whose sexual sense has become quiescent, and on the unborn child. It is stated for instance that the effect of sexual indulgence at that time is likely to develop abnormally the sexual instinct in the child, and that herein is to be found the key to much of the sexual precocity and depravity which curse humanity. Clearly this is a matter which must be left to each man's judgment and conscience; and, in the absence of any determining reason, the position defined above may be generally accepted. But where direction and advice on this and other matters may be needed, recourse should be had to some medical men of high standing and character.

It should be generally understood that a woman is not to be held responsible for the undesirable methods that may be adopted by the husband to prevent child-birth, if she has remonstrated with him; nor does such conduct on his part warrant her in withholding the rights of marriage.

III

By Rev. Alfred E. Garvie, M.A., D.D.,
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(1) This essay is written from the standpoint of Christian ethical monotheism, and is an attempt to apply its idea of God and its ideal of man to the solution of the problem of the functions, obligations, and privileges of parenthood. Amid many other voices this voice has a claim to be heard. The fundamental principles of the discussion are the following: God is mighty, wise, holy, and loving, the Creator, Preserver, and Ruler of all. Man is made for God's likeness and fellowship. In Christ, God is revealed as Father, and men are redeemed from sin to be the sons of God. Evolution is the method of the creation, which is consummated in man, and of the re-creation by the Spirit of God, of man, whose nature has been marred by sin. While there is a continuity of

purpose the process is not, as far as we now know it, continuous; but there are distinct stages in a progress of which the lower stages do not explain the higher.

The transitions from the non-living to the living, from the unconscious to the conscious is unthinkable. While matter is not the efficient cause of mind, mind is the final cause of matter. So far as this movement discloses its goal, it is rational, moral and spiritual personality, developing into fuller likeness to God, and closer fellowship with Him. Not merely quality of vitality, but quality of personality is God's aim so far as His work shows His mind. The biological standpoint is not adequate to the treatment of the subject before us; it must be supplemented and, if need be, even corrected by the psychological, sociological, ethical, and theological.

(2) The two characteristics of life, whether in plant or animal, are assimilation and reproduction. The living organism can transform matter into protoplasm, or living substance; it is ever remaking itself. It can also reproduce

itself in another organism; it thus makes another as well as remakes itself. These two distinctive marks of living things justify our speaking of them as possessing *delegated creative power*. There is a continuous creation. The *élan* vital is unexhausted. What most impresses us in nature is the abundance, nay, almost the prodigality of life, suggesting an unmeasured and almost uncontrolled creative power. Earth, air, river, sea swarm with living beings. To the rock, almost bare of earth, the rock-plant clings. Through the flags in the roadway the blades of grass will push. Given the least chance life will maintain and reproduce itself. Not only how abundant, but also how varied are the forms of life! And yet on closer scrutiny we discover that God is, as it were, economical in the ultimate elements and constant methods, and only prodigal in the combinations and permutations of these. Accordingly in plant and animal, however far apart they may appear in the order of evolution, the same means are used for the same ends; thus sex runs through living forms from

plant to animal and animal to man as the most common method of reproduction.

(3) There is asexual reproduction, but sexual has an advantage over asexual. (i) It is held by Darwin and other biologists that a self-fertilized plant has less vitality than a plant fertilized from another; and there are means used in the structure of a plant to prevent self-fertilization. By the wind, and by insects the pollen is carried from one plant to another. A wider range of vitality is reached by such fertilization; defects can be corrected and excellences augmented. The self-fertilized plant is limited in its possibilities by its immediate environment; cross-fertilization at once enlarges the environment, on the whole neutralizing unfavourable and enhancing favourable conditions. In animals we can study the disadvantages of inbreeding. Into a flock or herd new elements have to be introduced to preserve health and improve quality. Among men also are seen the ill-effects of intermarriage in small isolated communities, where mostly all the members are not only relatives,

but are living under the same conditions. From the physiological standpoint there would seem to be no objection against, but rather an argument for, the intermixture of nations and even races, although as regards races so unlike as the black and the white this has been challenged.

(ii) When we come to the higher animals, including men, an additional reason for sexual reproduction emerges. It secures for the offspring the care of two and not of one parent only, and thus a greater assurance of the necessary provision for need and protection against dangers. While the greater responsibility falls upon the mother generally, the father co-operates more or less, in the discharge of the obligations imposed by parenthood. The longer the immaturity of the offspring, and its inability to provide for or protect itself, the more enduring must be the relations between the parents. The male fish fertilizes the spawn which the female fish has scattered on the sand or the water; but as there is no necessary contact of the one with

the other, so there is no common care of offspring. As we rise higher in the scale of vital evolution, the process of reproduction depends on such contact of the reproductive organs as involves a very close association of the parents, and thus there is formed a bond of common interest which is strengthened by the accompanying pleasure. Among some animals there is even a more or less permanent relation of the parents to one another. Marriage as a social institution, recognized and maintained by law, gives the necessary permanence to the relation of human parents in the interests of their children.

(iii) While in many species there is a breeding season, in which the sexual attraction is felt and reproduction takes place, so as to secure the most favourable conditions for the rearing of the offspring, in man the desire for sexual association is more constant. This we may affirm on physiological grounds, and not for psychological reasons only. Probably desire is more frequent in the male than in the female. The animal appetite is trans-

formed in man as conscious, voluntary personality. He remembers the satisfaction he had, he anticipates the satisfaction he will have, and thus memory and hope stimulate desire to so great an extent that self-control here is an imperative necessity. Man has lost the almost sure guidance of animal instinct, and has to follow the less certain lead of reason, which can so easily be perverted. This frequency of desire, perilous as it may become, is the physical factor in the more constant relation of men and women in marriage; it serves an essential purpose in the vital evolution. Animal offspring, with certain exceptions, is not quite so helpless, and does not need care so long as does the human child; and hence the association of the human parents must be continued for a very much longer time and makes greater demands on both. Not only provision for physical needs, and protection against physical dangers are needed, but there must also be the teaching and training necessary for the development of a rational, moral, social, and spiritual person.

(4) Another reason for the sexual association besides reproduction thus emerges.

As men and women are self-conscious personalities, they cannot in their relation to one another be merely means towards the end of maintaining the race; they must fulfil their purpose as persons in their relations. It may be said that they do realize themselves in their common parenthood; and the writer would be the last to deny that the man is completed in fatherhood, as the woman is in motherhood. But both do realize themselves in their relation as husband and wife before and apart from that fuller self-realization; for men and women have need of, and find a good in, one another. It is not merely as distinguished by sex physically that they are complementary to one another. The common life to which each contributes is a more complete human life in all respects than that which the one could attain without the other. The love of man and woman, while the starting-point of its course is the physical difference with all its mental, moral, and spiritual companionship,

counsel, help, and encouragement which they can give to one another. The man or woman dreams a false dream who thinks of gaining fuller self-realization apart from marriage.

These two reasons for sex must, however, be put in their proper order. Poetry, novel, and drama conspire in giving the impression that the love of husband and wife is the primary fact, and possesses the supreme, if not even exclusive, importance. The courtship is supposed to have much greater interest than the married life, pursuit being more thrilling an adventure than possession. In the evolution of the world, in the process of life, from the standpoint of the race, however, it is reproduction, the relation of parenthood, which must be put in the forefront of consideration. It is not an accident to be deplored or avoided, of the sexual association. It is the primary and normal, if not exclusive purpose, and there is likely to be physical injury and social wrong if this dictate of nature is disregarded, and men seek in their social development to arrest or

divert the organic evolution from its purpose. Benjamin Kidd has insisted that the condition of progress is the subordination of the present and the individual to the future and the universal; and the most obvious application of this principle is that marriage be subordinated to parenthood, and not parenthood to marriage; that the delight of man and woman in one another be moralized in a grateful acceptance of the obligations of a common parenthood.

This does not mean, however, that reproduction is the sole justification for sexual association, and is illegitimate when that result is improbable, as the love of husband and wife, having emerged in the vital evolution as a necessary, beneficent factor of progress, becomes a secondary purpose of marriage; and of this love many, who have experienced its value, dare to call the sexual association a necessary sacrament. It is not to raise but to lower the relation to maintain that reproduction is its only reason, for as has already been indicated men and women must not be re-

garded as merely means for racial ends. It does mean, however, that to set aside without adequate reason the primary purpose for the sexual association in the vital evolution while fulfilling the secondary is an unwarranted departure from nature. When a husband begins to speak of, and address his wife as mother, he is not simply setting an example to his children, he is recognizing the full racial significance of his relation to her and hers to him, not merely as living organisms, but as self-conscious personalities. In reproduction God delegates to His creatures the exercise of creative power; in human parenthood he confers a still higher glory, in that the creative power is exercised voluntarily, and so He imposes a deeper obligation, that it be exercised worthily for Him.

(5) As this function is to be exercised not instinctively, but rationally and conscientiously, man must seek to discover the divine intention, so that he may be a fellow-worker with God. At the beginning, in stating fundamental principles, the writer has expressed

the judgment that not merely fullness of life, but worth of personality is God's aim. The apparent prodigality of life in the world is not a justification for the reckless multiplication of human life. Regard must be given to quality as well as to quantity. It is healthy, happy and holy human life, and not life merely which is to be increased. To beget or to have children under conditions which are not only unfavourable to, but destructive of, human personality is no meritorious act. To have them in such numbers as hinder their development and education to worthy manhood or womanhood is not a virtue deserving applause. In applying this consideration, however, we must take a democratic and not an aristocratic view. Not a very small number of very superior persons is desirable, but as large a number as possible of men and women, who live worthily and find life worth living, should be the aim. The quantity of life to be encouraged must be always relative to the quality of life to be desired.

(6) There are physical, economic, social and

moral conditions which are adverse to good life for great numbers of the population. The question is, Shall the population be reduced so as to make unsatisfactory conditions less intolerable, or shall the conditions be so improved that the population may be maintained or even increased without loss or hurt? The answer of the social reformer (and in the writer's judgment his is God's authentic voice) is that the conditions must be improved; higher wages, better houses, cleaner cities, fresher air, purer water, cheaper food, and other changes are all possible within the existing social order and with the resources which it can even now command. Hence there is no necessity for the desperate remedy of a reduction of the population to make life more tolerable. Some of the advocates of the restriction of the family are animated, it is no lack of charity to say, by the desire to maintain conditions which are highly favourable to the few, and actually if not necessarily deeply hurtful to the many. If personality be the consummation of evolution, then the subordination

of things to persons, and not of persons to things, is the fulfilment of the creative purpose. We should have as many persons as possible, even if some of them may have to put up with fewer things that there may be enough for all. Into the economic aspects of the subject it is not the writer's intention to enter, but he may express his judgment, based on what he believes to be adequate knowledge, that in the mother country and the Empire there is need of and room for a larger population, capable of enjoying a good human life, if the adverse conditions are changed, as they can and must be changed.

For the Malthusian assumption that population tends to increase in geometrical, and means of subsistence in arithmetical, progression there is in present conditions and future possibilities in the world no justification. The altogether artificial situation in some lands, which is the calamitous result of the war, is not a general or permanent factor which we must take into account. For the neo-Malthusian contention that a high birth-

rate is always accompanied by a high death-rate only a plausible argument can be offered. On the one hand, no necessary physical correlation can be or has been proved; on the other hand, the adverse conditions, under which both are often met with, can be so altered that a rising birth-rate may yet be made to coincide with a falling death-rate. That is the object which the social reformer sets before himself. Until the belief that inspires him has been proved an illusion, we need not resign ourselves to the assumption that death is a divinely appointed penalty for the increase of life by the human exercise of the delegated creative power of God.

While under certain conditions, the limitation of the quantity of life may be necessary to secure the improvement of the quality, yet if conditions can be so changed, that quantity may be increased as well as quality improved, the latter seems to afford a justification for the former. If life can be made good in all respects and in the measure in which it can be made good, it is surely desirable that it should

also abound. If the children of men can become the family of God; if they can grow in likeness to God, and gain fellowship with Him, as the Christian believes is possible, then it is to be desired that to as many human beings as can be the opportunity of realizing such a destiny should be given. Parents in exercising their delegated creative power with the desire and the purpose to teach and train their children for this life in God, and for God, are fulfilling their calling as truly and fully as in the worship or the service of the Church. If this life in God means as it does life for others, then they are also rendering a social service and discharging a moral obligation. If we properly appreciate the value of a human personality, when the conditions for its proper development are present, refusal of the privilege of parenthood, unless for reasons conscience can approve, is a wrong done to God and man, and acceptance is a racial service on which a blessing will rest.

(7) Apart from the obligation of parenthood on this broad ground of the divine intention for

the race, other reasons may be given why the function should not be refused. As parenthood is the primary purpose of marriage, the love of husband and wife is ennobled and enriched in their common life for their children. Children educate their parents as well as one another. An only child is very often a spoiled child. It is good and not evil for children if the number in the home calls for mutual care, unselfishness, and sacrifice. The home empty of children is not usually the happiest home; the full home has often the greatest measure of happiness.

It is bad, not good, for husband and wife, and worse for the wife, to repress the desire and refuse the responsibility of parenthood for any reason which is not itself so good as to afford an adequate moral compensation. Consideration for the health of the wife, solicitude for the present welfare and the future good of the children, desire not to incur responsibilities which cannot be properly met—these are reasons which may make the restriction of the family not an evasion of duty, but the acceptance of it. But any of these reasons must be

scrutinized closely by conscience, lest worldliness, selfishness, distrust, or cowardice should assume them as a disguise. There is here, as in all human affairs, also a call for confidence in God, courage for the future, sacrifice if need be in the present. Out of poor homes which contained a large family most valuable human material has frequently come. Hard work, poor fare, thrift, unselfishness have not proved bad conditions for raising a hardy and worthy stock, where there were moral principles and religious faith. The apparently most favourable conditions will not really produce the best results, unless these higher elements of human personality are present. The *Dictionary of National Biography* shows that many distinguished men have sprung from large families in poor homes. This is not an argument for any unjust perpetuation of poverty, or against any relief which can rightly be given of the burdens of parenthood; but it is a reason which may be argued against a parental caution which may easily degenerate into a faithless cowardice. By the restriction of the

family the world may be deprived of a very valuable human personality. It is a great responsibility to restrain, as it is also to exercise, the delegated creative power in parenthood; and restraint or exercise must be according to an enlightened conscience. It is probably better for the world that the worldly, selfish, unbelieving, and cowardly should not become parents; but such moral inferiority is itself a wrong to self, others, and God.

(8) If there be adequate reasons for restriction of the family, the method must be worthy of moral personality, that is by self-control either in partial or in total abstinence from the sexual association. In the limitation of the association to the periods when conception is less likely to take place, there is an exercise of self-control; there is no interference with the natural process; there is a readiness to accept the burden of parenthood, if it should come. By asserting, as is sometimes done, that to demand self-control is to impose a burden too grievous to be borne, we should offer an excuse for unchastity in the unmarried, even if we

recognized that marriage involves conditions which increase the strain. It may be true that unless there be a high moral purpose, abstinence for long periods is not good physically, or even morally, for normal, healthy young couples, and is likely to cause mutual irritation and unhappiness; but the difficulty of a moral obligation is not a reason for disregard of it; and the writer is confident that, if high moral purpose dominated, the difficulty would be removed, as even animal appetites can be transformed by proper moral direction.

To be compassionate to human weakness, and not to condemn those who do not rise to the height of this moral requirement is one thing; quite another is to approve, or even to advocate, the restriction of the family by artificial methods, chemical or mechanical. It may be that just as for the hardness of men's hearts divorce must be tolerated, although indissoluble marriage is the ideal, so these methods must be, as not immoral in the degree in which fornication is immoral, but they cannot be approved as moral in the degree in

which self-control is. The writer himself is not convinced that these methods can be justified even physiologically, still less ethically. But even if they could, his main contention would not be at all affected, that, as God desires fullness of life in this world, an abundance of healthy, happy, and holy life in mankind, the creative power He has delegated in human parenthood should be used wisely, righteously, and lovingly, so as to secure both the abundance of life, and the conditions, physical, economic, social, moral, and religious, which will make that life a good to be desired, and not an evil to be shunned, the Creation thus sharing the blessedness of the Creator.

IMPERIAL AND RACIAL ASPECTS

I

By Sir Rider Haggard, K.B.E.

In all the talk that surges through the columns of the Press and elsewhere, as to what is or is not an adequate population for the British Empire, also other countries, and concerning the problems that surround the subject, I think that one elementary fact is too often overlooked, namely, that at the bottom population is a matter of, and dependent on, food supply. Our forefathers knew this of course, as it was known long before their day; for example, in ancient Egypt when that extremely able Semitic vizier, Joseph, took practical measures to avert a famine which otherwise would have swept off three-fourths of the inhabitants of the Nile valley. Indeed, no one could fail to

know it when the people of any given land must live on last year's harvest and the existing stock of cattle, without hope of more coming in when these were exhausted.

That is why, to take our own case, although as I believe for reasons I have given in my work, *Rural England*, that once, probably in pre-Roman days, Britain was by comparison densely peopled, for many generations during the Middle Ages it could not number more than three or four millions souls. We are told much of the effect of pestilence and notably of that fearsome scourge, the Black Death, but in the long run I do not believe that these were the fundamental cause of the paucity of the numbers of our forefathers.

In those times folk for the most part dwelt upon the land where the water was pure, the air healthy, and there were no drains to poison them. Also, as checks upon the birth-rate were unknown, or at any rate scarcely known —which may be said as well of certain terrible diseases that now kill or sterilize tens of thousands—every healthy married woman must

have produced something like her natural quota of offspring. Of these civil wars and tumults no doubt killed out some, but, after all, such calamities were occasional events. Therefore, in my view, the real cause of their non-multiplication must be sought elsewhere, and I find it in the lack of food.

It should be remembered that agriculture, say, in the days of the Norman kings and long afterwards, was a very elementary affair. Manuring we may be sure was seldom practised, except where seaweed lay to hand upon the coast, its place being taken by wasteful fallowing; vast areas were under forests or undrained swamps; there were no roads, and therefore produce could not be got to market; as "roots" and "cake" were unknown, beasts could not be stall-fed in winter and therefore were few; the science of cultivation was little understood and the instruments used were rude, with the result that the return per acre must have been miserable. So it came about that from one cause and another little food was grown, and without food the children,

who lacked milk, died first, and after them all who were weak or sickly. Thus the population remained stationary, as from like causes it does in many a part of the world to this day.

Later came changes, and it rose in response to our added prosperity and the advance of knowledge, till from the beginning of the last century it swelled to a mighty human flood, especially after the corn, cheaply robbed from the virgin areas of the earth, began to flow into our ports. In short, the ancient saying was reversed, and we reaped where we did not sow, so that for a generation and more, to a great extent, we have been living upon imported produce.

This, indeed, became so much the rule that it was accepted as a new and additional law of nature, and those, of whom I may perhaps claim to be one, who tried to point out the dangers of the situation were mocked at. What did the land of England matter, cried their town-bred critics in effect, when there were Russia and Canada and a dozen other sources of cheap supply? Now all these wise-

acres are upon another tack, and it fills me with something like shame to hear the very men who were among the busiest of the mockers declaiming earnestly upon the vital necessity of cultivating our own acres, and offering every kind of bribe to those who will consent to do so. However, such is and always has been the habit of those who owe their place and power to the popular vote, and there is nothing more to be said.

What is the sum of the argument? This, I think—That the United Kingdom is in reality only entitled to just so many men and women as its fields would support, if through the action of enemies, or other causes, nothing that can fill the human stomach could reach our shores. As to what this number should be opinions differ, but perhaps it might be put at about half the present population, or a little more, provided that sufficient feeding-stuffs for cattle and artificial manures could be imported to enable us to grow our full average of beasts and corn. But with only half our present population, what would be our fate? Many

wise people tell us that it ought to be ideal, though I think they would like to see much less than half. Then, they say, there would be plenty for every man. Each could live under his own fig tree, doing little or no work, and so forth. The League of Nations would see that it was so.

Whether these conditions would really be fulfilled is a matter for argument. Personally, I doubt it. Personally, I believe that each of those Utopian lotus-eaters would want his neighbour's lotus-tree as well as his own and try to take it by fraud or force, with the result that things would go on much as before. At bottom nearly every man thinks that there is no room for the man next door; like Alexander, or a Boer farmer of the old sort, he would rule alone.

However this may be, it is certain that with half or less of their existing population these islands would not hold their present place in the world for very long, because some enemy would conquer and probably annex them, after which the select band of lotus-eaters would

have to work harder than did any Roman or other slaves, not for their own benefit but for that of some one else, or perish beneath the lash. Where, for instance, should we have been, and where would the Allies have been, if during the late war Great Britain had only possessed half her present population? Yet, I repeat, there be many who say, halve or quarter our inhabitants that those who remain may have less to do and more to enjoy, as doubtless would be the case in a world where everyone had secure and equal rights, and all fear of aggression from outside, or of Bolshevism from within, was insured against by a legion of guardian angels.

So the argument, if correct, comes to this, that the United Kingdom, if so it may still be called, must either maintain its population, or perish as a great Power, as other countries, which it is needless to particularize, have done before from much the same causes that threaten us. Indeed, the historian could compile quite a long list of them. In our instance, moreover, the problem is accentuated

by the fact that we happen to own, or at any rate to be more or less responsible for, about one quarter of the surface of the earth, all of which we govern or inhabit by means of a handful of some fifteen million people of our own blood—about the same number of souls as are packed away in a single Indian province and never heard of by the rest of the world. These few occupy Canada, Australasia, much of Africa, all India, and other parts of the earth too numerous to mention, and their numbers are kept up and in the tropics entirely recruited from the people of these little islands in the Northern Sea.

If that recruitment became impossible because there were no more recruits to send, what would happen to those dependencies? The tropical ones naturally would go at once back into the hands of their aboriginals, or into those of some other conquering Power. The others, which are known as White Man's countries, would either have to turn over a new leaf as regards the home production of mankind, or to import such foreigners as they

could get, until finally the original blood was watered away and they were overtaken by whatever destiny might be appointed to them.

Now I think I have said enough to show that in a world of many enemies, existent or potential, the British Empire, if it is to continue, must at the very least maintain its existent numbers. The rest of these brief pages will be directed to an inquiry into our prospect of success in this matter.

I chance to serve on the National Birth-Rate Commission, and as any member of that body will know, its inquiries tell an interesting and, in some ways, a rather ominous story. The population of this country, although it still increases by comparison with its former rates of advance, on the whole is going back; indeed, recently for a while the death-rate exceeded the birth-rate in England and Wales, though since then the latter has risen a little.

Looking at the matter broadly, there is every reason to fear that in the future, here and in some other countries, this decrease in the human output will be continuous and even

progressive. To begin with, in the British Isles there is an enormous surplus of women who can never marry because there are no men to marry them; I believe that now, after the war, in all it is put at something under two millions. Except for a small proportion of illegitimate births these women do not reproduce their species, and therefore must be ruled out of the account. Next, although the subject is not one upon which I propose to enter upon in detail, as the evidence given before the Birth-Rate Commission and statistics prove, what is known as birth-control or race-suicide is spreading fast throughout our people, and among the upper and middle classes is becoming almost universal. The large families which those of us who are elderly can remember in our youth are no longer to be found even among the clergy, who used to produce so many of our finest men and women. "Only sons" are becoming the rule, as we learned from the obituary notices during the war. Indeed, many young couples have no children at all, and this from choice, having

deliberately turned their backs upon the ancient injunction of the Bible and the Marriage Service, with the result that one of the most splendid existent strains of human beings is in the way of dying out.

The causes of this state of affairs are various: the growth of knowledge which makes prevention easy; the shrinking from inconvenience and pain; the love of pleasure; the desire to be free from hampering ties, and to preserve an attractive appearance; the difficulty of reproduction which, scientists tell us, follows on the prolonged habit of non-production; and so forth. The chief of them, however, so far as the middle classes are concerned, is undoubtedly economic. None who must rely upon a fixed income, or upon moderate means saved or inherited, can possibly afford a large family.

Within the last few years the costs of living have more than doubled, and there is every reason to suppose that these will continue to grow under the careful husbandry of the profiteer. Food and clothing have reached an

impossible figure; schools increase their fees that already were large enough; houses become more and more unobtainable at a moderate price; servants, if they are to be found at all, demand enormous wages in return for which they do little or no work, and constantly leave their employers in the lurch; and so on, with the result that in the end only the rich can stand the strain and preserve a decent appearance, while even their means practically are halved by taxation. Under these circumstances it is idle to suppose that even if parents desire children, which is by no means always the case, many will be produced. Few wish to see their offspring in the gutter or to be dragged thither to keep them company.

It may be argued that these considerations do not apply to what are known as the labouring classes. Their children are educated for nothing; often they receive free meals; free doctoring and milk at a special price. Their teeth, which cost the "black-coated" families pounds on pounds yearly, are treated gratis; their operations are performed in hospitals

for nothing; they are the recipients of a thousand charities; and if they show the slightest ability, all sorts of assistance is thrust upon them through secondary schools and otherwise. Moreover, their future is assured, except in the case of the most useless. Highly remunerative work awaits them as soon as they become adult. Trade unions protect them; politicians eager for their votes endow them with every possible benefit in the present, and promise them much more for the future at the cost of the State and the ratepayer. To take but one example: frequently the miner earns more than the learned clergyman whose education has cost at least £1000.

Yet in face of all this, the system of birth-control is strikingly downwards, and the most of such increase as there is of the population in Britain is to be found today among those strata of society which Mr. Lloyd George, I think, has classed as C3. Another thing. Certain diseases are allowed to rage practically unchecked, with the result that tens of thousands either die or lead blighted lives, leaving

behind them offspring accursed from birth. Further, the war has taken from us a vast tithe of the finest of our manhood, and thus rendered a corresponding number of women unproductive and, in many cases, left them without support. Lastly, an enormous amount of potential life is destroyed by the practice of abortion, upon which Mr. Justice Darling commented the other day that, it is believed, is increasing largely both here and elsewhere.

To confine myself for the moment to the case of the British Empire, which naturally is the most important for us, we have to recognize the fact that those evils on which I have touched appear to be prevalent also in the various Dominions of the Crown. There all the phenomena repeat themselves, and there also people crowd from the land into the great cities, with the accustomed results. Life in the country is dull and lonesome; society in the back country or on the prairies is limited, and the delights of cinema and other shows are lacking. So it comes about that the cities absorb the life of the community as leeches

suck blood, and with similar effects upon the body politic.

There appears therefore to be small hope that the white population of the Empire will increase largely in the immediate future. Indeed it may become stationary, and there is even a possibility that it will dwindle, as the population of France shows a tendency to do.

It must be admitted that there exists an important school of thought—to which I have alluded above—among whose advocates are many able men, which announces that all this is just as it should be; that the fewer people there are born in the world, the better will be the lot of those who do survive, since these will find to their hands more food, more pleasure, and the less necessity to work. Doubtless this is quite true, or would be, if the inhabitants of the whole earth made an axiom of this new doctrine. If, for example, the people of Germany had determined in the past that they would have no more inhabitants per square mile than those of France, where would have been the danger to France? But this is just

what they did not do, with the result that we all know the position in which France found herself in the autumn of 1914, when, if we had not gone to her assistance, she would have been destroyed, beggared, and enslaved. And if our small-population advocates had succeeded in translating their hopes into facts thirty or forty years ago, we should not have been able to go to the assistance of France for lack of men, with the result that after her annihilation we must have been driven down the same road of irredeemable disaster.

But, say some, this matter will soon right itself, since the same motives, call them selfish or prudential, as you will, will get to work among the aggressive peoples, and especially the Germanic races, with the same fruit—namely, that they will become as weak and as incapable of offence as the rest of us.

It may be so, or it may not, since a great nation with great ambitions to fulfil and a great revenge to work may decline to allow its men and women to follow this easy path. Sweeping aside the prejudices, as it might then

call them, of an earlier time, and adopting methods that decent and old-fashioned folk would think unpleasant and indeed unhallowed, it might by one means or another insist upon an adequate and healthy reproduction of its species. Cattle can be bred to any desired quantity to be the food of man, and why not human beings to be the food of guns, and to ensure the domination of their race over great stretches of the earth?

Personally, however, I incline to the view that in the long run all such cold-blooded schemes will break down, and that the motives and conditions which issue in birth restriction will, in the end, prevail among the Teutons as elsewhere. Then, their advocates will answer, you give away your case, since everywhere numbers will lessen in the most satisfactory fashion and all will be peace and plenty.

Those who talk in this way, however, forget that the white races are, in the slang phrase, not the only pebbles on the beach. There remains the East. On the fringe of the East, also, there remains Russia, herself half Oriental,

into the darkness of whose countless hordes this new light has not yet penetrated. Russia, I believe, has a population of about 180,000,000, although this total may have been somewhat lessened of late by the miseries that Bolshevism has brought upon her, and it will be some time before the race-suicide idea, or rather practice, diminishes these numbers to any marked extent. Until they are diminished, if directed and organized by German skill and courage, aided by other sinister influences what devastation might they not work upon the rest of Europe, should its man-power be depleted!

But behind Russia lies the East, which is, and probably for a great period of time will continue to be, animated by morals, rules, and standards utterly different from our own. The East is polygamous and there are, I believe, few unmarried women. The East worships its ancestors and therefore desires to have descendants that these in turn may worship. The ambition of the average Eastern woman is not to restrict, but to produce life, of which

the quantity is only limited by that of the food supply. Indeed, even in the face of the risk or even the certainty of famine, the life is still produced: yes, if afterwards it must be sacrificed.

I remember when I was a young man in Africa that a gentleman who had just arrived from China came to stay with me. He told me that there, in one of the great cities, he had seen the carts going round collecting female infants, living or dead, who had been exposed during the previous night. Those infants had been allowed to come to birth in the hope that they might be boys; if they were girls they were destroyed, because there was nothing on which they could be fed, or rather because the existent food was required for the support of males who in due course would earn their living and support their aged parents.

Now, while all these dim Eastern myriads were unarmed and helpless, they did not greatly matter to the arrogant white races. But as Japan has taught us within our own generation, they are no longer unarmed or

helpless, and what Japan has become today the peoples of China and of other places may, and probably will, become tomorrow. Why not? For the most part they are brave men, and fatalistic as regards suffering and death. Also they are willing to work and live much harder than we do, and are very clever. If we can build aircraft and make poison-gases, so can they who have coal and iron and chemists at command, and send their ablest citizens to spy out our secrets in every city. Why, then, having first earned the necessary wealth by trade, should they not supply themselves with fleets and armies and all the hellish panoply of modern war?

Because by nature they are too peaceful: that is the general answer. I suggest that men and women, who are also by nature affectionate, do not take any real pleasure in murdering their children because they have nothing with which to stay their stomachs. They only do this because they prefer that there should come to them a quick death rather than one that is slow, or that if they do manage to live, it

should be but to suffer every degradation and misery known to mankind. If they came to learn that there were other great spaces of the world which would support millions of them, lying to their hands and but scantily garrisoned, is it not probable that soon or late they might build the ships necessary to take them there, or rather in the first place to exterminate or subdue the handful that at present own these places? Well do I remember that wise and prescient man, my late friend, ex-President Roosevelt, discussing this matter with me and, having indicated one of them, saying grimly:

"That will be the first place to go!"

Having touched upon this subject, I turn to that of the population of the British Empire, and to the question of how it can be increased. The larger matter of the population of the world I leave aside, because I believe that its numbers will never vary to any appreciable extent, even if they have ever really done so in the past, considering the globe as a whole. Where there are countries that can grow food,

they will be occupied to their full food-producing capacity so soon as they are discovered and means are provided to reach them, or at any rate within a measurable count of years. By what races they will be occupied is another matter, and one with which in the long run Nature does not concern herself.

It comes to this, then—the Western races and their progeny in various parts of the earth must either keep up their numbers or run the risk of being submerged by the Eastern races, and this within a short period of time, say a couple of centuries. Especially is this the case with the vast collection of States known as the British Empire, whose enormous territories are occupied by but a few of our own blood. Nor in every instance is it necessary to look to the East for the immediate peril. Thus Africa has aborigines of its own who, with a little more instruction in the white man's arts of war, of which they have received a first lesson at German hands during the last five years, would be quite capable of producing the dreaded catastrophe.

Also it may be helped forward by other means. When I was in South Africa in 1914, and again during the war, I was greatly struck by the number of persons of mixed origin whom I saw walking about the streets of the cities. This miscegenation, as I believe it is called, is, I was told by prominent observers in the country, much on the increase. If so, it is unnecessary to dwell upon its ultimate results in a land of which the Europeans amount to only about twenty-one per cent. of the total population.

To sum up, it will, I think, be admitted that under all these circumstances it is absolutely necessary that the white citizens of the Empire should be increased in number. Sixty million persons of our blood are not too many to rule over some three hundred and seventy millions of native peoples, which, according to Whittaker, seems to be the correct proportions. In the past it has been done, but the question is, in the absence of a considerable increase of the white stock, whether it can continue to be done in the future under the changing condi-

tions of the world. At any rate it will be admitted that such an increase is most desirable, and indeed most vital. Will it be forthcoming?

Of those sixty millions, it must be remembered, about forty-five millions live in these little islands; it is the balance that holds the vast overseas national estates upon which so many envious eyes are turned. Nor is this wonderful seeing that Australasia, with a population of, I think, under seven millions all told, could, it is admitted, support from fifty to a hundred millions of white folk, or of others who can thrive in semi-tropical climates, such as that of the northern territory, a number which it is impossible to calculate. Yet during all the generations that it has been occupied, this vast Dominion has only succeeded in importing or in begetting a total of under seven million souls—namely, about the population of London—and of these a half, or thereabouts, dwell in a few big cities.

If the Empire population could be redistributed the outlook might be better, but in practice this is impossible. Nowadays people

cannot be moved in blocks on the pattern of the customs of the Incas of Peru. Therefore, for the refreshment of the Dominions with British blood we must rely upon the ordinary processes of migration, of which any ordered arrangement has hitherto been entirely neglected by the Imperial power. Indeed, a huge proportion of our emigrants have gone to the United States, though of late this stream has lessened somewhat, and will doubtless receive a further check from the American "Pussyfoot" legislation, for the reason that the average inhabitant of the United Kingdom does not care to choose a new home in any country where he will be subject to coercion, of whatever sort it may be. Those countries which desire to attract immigrants would do well to leave "Pussyfoot" alone.

Our surplus then, it may be hoped, will henceforward in the main be turned to those lands where our own flag flies, but what that surplus may number is another matter. Earlier in this article I have set out some of the causes that tend to render our population

stationary. Whether these will persist it is impossible to say, and on the credit side of the account it should be remarked that within the last few months there has been a slight rise in the birth-rate, at any rate in certain cities and districts. This may be a mere temporary manifestation that has to do with the cessation of the war, or, as we all hope, it may continue. If it does continue it will help to some extent to palliate our anxieties; if it does not the position is menacing.

Nations do not remain stationary for long. Either they increase or they decline: it is written large in history. Should the British Empire begin to decline, it will be a very terrible event, since its ultimate fall would mean the greatest loss that the known history of the world records—a truth that even our rivals, yes, and our enemies will, I believe, admit.

Omitting the decrees of Providence, the ultimate issue of this matter under our social arrangements lies in the hands of our women. As I said in giving evidence before the National Birth-Rate Commission, in my opinion,

the best thing that we can do is to appeal to the women of the Empire to save the Empire, and to impress upon them the fact that great nations are not destroyed: they commit suicide. I am by no means certain that such an appeal will have any effect. Still it should be made, that the final responsibility may rest upon the right shoulders.

Or perhaps the age we live in and the conditions of modern life are really to blame, and not either one sex or the other. My own conviction is that the root of all this trouble, as I have preached for thirty years, is the desertion of the land for the cities. On the land men are created; in the cities they perish.

But all these arguments take the real responsibility back a long way—namely, to the gates of Fate itself. If Fate, to give the Power that rules the destinies of the Universe and men its pre-Christian name, decrees that the white races and their form of civilization are to perish or be transmuted and absorbed, so it will befall, and I do not suppose that a few thousand years hence the world will trouble

itself overmuch about the matter; for after all it has seen a good many civilizations of which we know, and possibly others of which we know nothing.

Still, that the danger of which I have tried to speak is real and not imagined, I believe that any who, should these words survive, may chance to read them and others I have written, even two generations hence, will find too much cause to admit. The odd thing is that its existence never seems to occur to that select band of our super-folk who are known as statesmen, for which reason, I suppose, they give no thought to these very manifest perils and suggest no measures to confront them. In their defence it must be remembered that events which may or may not happen a generation or two hence are not in the category of what are known as practical politics.

On the whole, the British Empire has done good in a disappointing world, and it will be sad if it is broken up or left desolate because of a lack of children to carry on its responsibilities and its glory.

II

By Marie Carmichael Stopes, D.Sc., Ph.D., F.L.S., F.R.S.Lit.

The vision of what the human race may one day become has hovered for many centuries over the minds of the greater thinkers and teachers. Utopias have been written picturing our wonderful development in the distant future, when humanity shall be dwelling in perfect harmony with ideal surroundings. An extension of the powers of human beings, an increase in their beauty or in the intricate workings of their minds are postulated deliberately or are implied by all the writers of Utopias; but the dreams of the Utopians of every type hovered and still hover unattached to the solid earth on which we walk; the connecting link between the present and these airy futures is never forged and placed at the

disposal of humanity by the creators of visions splendid.

The race needs to be led into the promised land, and the path clearly marked which will lead directly from the grey present to the future glorious state. Today the multitudes are too great to be led literally and physically into some new and narrow region of the earth. It is within the lands in which they now dwell that the people must be transformed and led into greater perfection of physical, mental and spiritual beauty.

If, then, we are to find the way into Utopia while still remaining on the soil we now tread, it is *in* ourselves that we must work the transformation. Is that possible? Not as individuals but as a race it appears to me to be not only possible but within our reach. Those who are grown up in the present active generations, the matured and hardened, with all their weaknesses and flaws, cannot do very much, though they may do something with themselves. They can, however, study the conditions under which they came into being, discover where lie

the chief sources of defect, and eliminate those sources of defect from the coming generation so as to remove from those who are still to be born the needless burdens the race has carried.

The first step into the new Utopia is the reverent and honest realization of the miraculous power of understanding love coupled with a humble recognition of the great essential fact that human individuals are biological units in their bodily sense, just as are individual animals, plants, or trees. Throughout the animal world, and throughout even the plant world, there has been a continuous trend of reduction in the *number* of offspring, and an increase in the security and endowment of the offspring produced. Yet even today the universal law of all reproductive life is to produce innumerably more offspring than can possibly survive: each young struggling life once endowed with an embryonic body has an amazing vitality and zest for living, and the result of this is that each will cling to life wherever it is possible to retain a foothold. Yet where they are crowded, each individual is robbing

its neighbour of necessary light, space, and food, dwarfing and stunting each and all. A very simple illustration of this law can be demonstrated by planting on two plots of the some ground each six feet square, in one, one dozen and in the other one hundred plants of the same sort (for instance Shirley poppies), and allowing them to grow to maturity. In the first plot those that have room spread their leaves to the sun and air and grow to handsome individuals. In the second, the spindly, small, undeveloped stems support leaves which are fighting for the light and air, and if the plants flower at all they do so with undersized flowers. In the former, the blossoms are three or four inches in diameter; in the latter the shabby flowers may be half an inch or less across. yet even the starved and stunted flowers will go on producing their like, crowding each other to death, until probably, in the course of nature that plot of ground is captured by a few isolated seedlings of some totally different type which, coming in small numbers, each develop sturdily, taking all the space.

Humanity is now beginning to awaken to the puny and degenerate condition of innumerable thousands, particularly in the cities, where an observant eye may often search long for a fine healthy-looking individual.

The sad features of racial degeneration which assail us on every side today are nearly all the result of two great wrongs. One is *crowding*, and the other the devastating infection known as Venereal Disease.

The elimination of sex disease, because of its more rapidly contagious nature, is in some respects the most urgent problem immediately facing humanity, and were we brave enough to take this appalling scourge in the open and fight it with every sort of knowledge that is available, its evils might be rapidly curbed. So terrible are the results, particularly of syphilis, upon the next generation, that all who think agree that no diseased person should risk the transmission of such curses to his offspring. This, in whatever form the diseased person may protect the next generation, whether by refraining from marriage, or by

separation from his wife within marriage, is *in principle* a form of control of conception, a form which all the Churches and all thinking people must insist is a barest racial necessity.

So acute have recent events made these problems of the sex and other heritable diseases, that there is little doubt that humanity will be driven to deal frankly with the problem and to eliminate such contagions, as they have well-nigh eliminated small-pox and leprosy from this country.

In a sense, disease may be looked upon as an abnormality, an unnatural and repulsive condition which a normal healthy mind revolts from and conquers, and it is therefore less dangerous to the race in some ways than a deleterious condition considered "natural."

The former of the two great sources of the weakening of the human stock, namely crowding, is the more fundamental, because an ever-present source of weakness, even in healthy stocks of normal, happy, untainted people. Hence crowding is, in my opinion even more

serious a menace to humanity than an open enemy like disease.

Crowding before birth, crowding in the womb of the overburdened mother, is at present the greatest of all natural sources of the dwarfing and stunting of humanity, sapping the resources of the race in every direction. And this will for ever remain until humanity takes complete control over its conceptions. Sex disease may—should—be speedily eliminated, but the impulse to overpopulate is an inherent characteristic in untutored humanity. Little is realized by the general public of the immensity of the effects of this crowding in the womb of the ignorant and helpless woman, of the torment she endures, of the weakening of the human stock which results. Too little has it been realized that it is this antenatal as well as postnatal crowding that has been warping the race, so that I must make this more apparent.

Early and late Nature provides a possibility for the establishment of the human embryo in the soil of its mother's body. Crowding

through her into the world comes a perpetual stream of potential lives. If each is to develop to anything like its potential perfection, they must be given space and time to grow, just as the poppy seed must have space to grow in the soil. When one embryo has established itself, it can hold at bay the others for the nine months, taking all for itself, and developing by using the strength of its mother. But, directly it is separated from her, the onrush of the other potential individuals begins again, and if then another and another repeatedly takes root, each does so in a physical substratum successfully weakened by what it has given to its immediate predecessor. Yet still the resources of vitality are great, and in repeated and immediate succession two, three, four, or perhaps more fresh lives may, without too great disaster, grow closely adjacent in time, if the original mother-stock is strong. But, as in the plot overplanted with the poppy seedlings, crowding, once it has reached the point of intensity, will begin to show in the punier size and weakening of the human indivi-

duals. We are accustomed to think of crowds as being coincident in space and time, but I should like the thought to penetrate our social consciousness that in the womb the time factor which makes the crowd may be extended.

These are physical facts. There are other and subtler results from crowding. The race pictured in the Utopias—the human race as it may be—must have not only well-developed and sufficiently beautiful and adaptable bodies, it must have a mind increasingly attuned to the ideal. The effect of its environment on the mind has been partly veiled by the marvellous mastery which at times the mind may show over its physical environment. But a deep underlying truth is the fact that the expression of the potentialities of a mind depend on the bodily form through which they act, as does the electric current depend on the wires of the lamp for its transmutation into light.

What of the minds that are formed in the crowded spaces of an overburdened mother? Can they be well formed in the poison of bitterness provoked by the anguish and horror

of undesired maternity? Sometimes, by rare chance, it may *appear* that this is so, although unless the whole life in its most secret and inmost recesses is made bare, who is to say how much any individual may today suffer secretly and in bravely hidden mental depression as result of the secret misery of his mother while she carried him?

The credulous reliance which humanity is encouraged to place on any pronouncement supposedly of "science," when uttered authoritatively, has often led humanity astray, or at least by a very zigzag and convoluted path in the direction of the real truth. Not the least of the injuries done to the human race by the partial misapprehension of greater truths has been the scientific derision of the view that the mother's mental state affects the child during the nine months she carries it before birth. A few of the prophets of science, wiser than the majority, have recognized the possibility of antenatal influence, as did Alfred Russell Wallace; but modern science is only just beginning to discover the necessary analogous

facts which will some day make clear and demonstrate this truth. In my opinion the truth of antenatal influence through the mother is certain, so that not only the bodily condition, but the mental and spiritual outlook, of the mother affects the child she is bearing. For the purpose of this essay I take the above view as axiomatic, for there is not space here to discuss the evidence.

What can be the effect of the working of this law on the race? Do we not see it all round us in the bitterness, the hatred, the inhuman virulence of one human being towards another? Such dispositions are the very counterpart of the feelings of outraged horror and revolt which overwhelm the already overburdened mother, when she feels the drag within her of yet another child she did not desire.

It is sometimes carelessly argued that all through the centuries of the past women have always been involuntary mothers, and that the human race in times past had a greater physical perfection than it has today. Our know-

ledge of the past is partial, a few mountain peaks lit by sunlight stand out of the crowded and hazy glimpses of the forgotten, and we see figures of the stalwart Viking, the beautiful Greek, the proud Egyptian. The misty uncertainty of our knowledge of times past covers the myriads who have crowded into life merely to be extinguished or suppressed by early death. Look at the tombs of the fifteenth and sixteenth centuries in our churches, where the rows of sons and daughters carved upon the sides of the tombs are so frequently infants and young children who have died within a year or two of birth! It is true that in those days, in all the days until quite recent times, women in the majority have borne meekly and unresistingly the burden of crowded lives, borne perhaps without any voiced—perhaps without any conscious—feeling of revolt. The revolt, the bitterness, which is now finding expression in violence and uprising in every quarter of the world, is the result not only of simple crowding, but is also the echo of the revolt and bitterness and horror of

women who bore that burden of age-long tradition, no longer passively, but *bearing it with the consciousness that it should not have been* if they had been allowed full knowledge.

For nearly one hundred years there has been in the world knowledge which might long ago have been universal property, which could have prevented every dreaded conception, which could have saved anguish and burden and deformity colossal in its harrowing amount. This knowledge has been withheld from womanhood nearly all over the world, but it has not been annihilated. Echoes of its existence, of its beneficent potentialities have travelled from one to the other. The most overburdened, the most ignorant, has faintly and vaguely realized that things need not be so cruel for her as they are. The human mind, tormented in any way, bows itself and can almost forget the torment if it is a fundamental necessity (as humanity, tormented by the shortness of life and the imminence of death, forgets these things and laughs and

dances), yet it will not so patiently endure torment, burdens, wrongs which it consciously realizes are not fundamental necessities, which are indeed *imposed* upon it by others, collectively or individually.

For more than a generation women throughout the world, sometimes clearly, sometimes with but a glimmering, have realized that the eternal burden and outrage of the overcrowded womb is not a fundamental necessity. Those then who have borne more and ever more children than they desired, under conditions that outraged them, have bred into the plastic minds that were forming within them that sense of bitterness and revolt which is now so poisoning human relations.

How different the racial value of desired and beloved children! Minds surrounded by every form of healthy and beautiful mental and bodily activity are able to grow in helpful harmony. If the joyous picture of a radiantly beautiful humanity in a true Utopia is ever to be achieved, it must be achieved by creating only minds and bodies desired

and beloved from the first moment of their inception.

Translated into terms of everyday practice, I maintain that the only hope for the race is the conscious elimination of all diseased and overcrowded lives *before* their conception, by planning only to conceive those for whom adequate provision of material necessities and a loving welcome are reasonably to be anticipated.

When once the women of *all* classes have the fear and dread of undesired maternity removed from them, they will be free to put all their delicate strength into creating desired and beautiful children. And it is on the feet of those children that the race will go forward into the promised land of Utopia.

This, the first foundation of Utopia, could be reached in my lifetime, had I the power to issue inviolable edicts. Alas! that the age of a beneficent autocracy has never been and is not here today! Instead of achieving in two generations the great result on the human race

that could be achieved, it will be necessary to take the slower means of creating in every individual that intense consciousness of the race which will make it impossible for individuals ever to tolerate the coercion of enforced and miserable motherhood, with its consequent poison of the racial stream.

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